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NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	AUG 10	Time limit for inactive STN sessions doubles to 40 minutes
NEWS 3	AUG 18	COMPENDEX indexing changed for the Corporate Source (CS) field
NEWS 4	AUG 24	ENCOMPLIT/ENCOMPLIT2 reloaded and enhanced
NEWS 5	AUG 24	CA/CAplus enhanced with legal status information for U.S. patents
NEWS 6	SEP 09	50 Millionth Unique Chemical Substance Recorded in CAS REGISTRY
NEWS 7	SEP 11	WPIDS, WPINDEX, and WPIX now include Japanese FTERM thesaurus
NEWS 8	OCT 21	Derwent World Patents Index Coverage of Indian and Taiwanese Content Expanded
NEWS 9	OCT 21	Derwent World Patents Index enhanced with human translated claims for Chinese Applications and Utility Models
NEWS 10	NOV 23	Addition of SCAN format to selected STN databases
NEWS 11	NOV 23	Annual Reload of IFI Databases
NEWS 12	DEC 01	FRFULL Content and Search Enhancements
NEWS 13	DEC 01	DGENE, USGENE, and PCTGEN: new percent identity feature for sorting BLAST answer sets
NEWS 14	DEC 02	Derwent World Patent Index: Japanese FI-TERM thesaurus added
NEWS 15	DEC 02	PCTGEN enhanced with patent family and legal status display data from INPADOCDB
NEWS 16	DEC 02	USGENE: Enhanced coverage of bibliographic and sequence information

NEWS EXPRESS MAY 26 09 CURRENT WINDOWS VERSION IS V8.4,
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

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COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.22       0.22

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STRUCTURE FILE UPDATES:   13 DEC 2009  HIGHEST RN 1197170-99-2
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http://www.cas.org/support/stngen/stndoc/properties.html

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Uploading C:\Program Files\STNEXP\Queries\10581619s1.str
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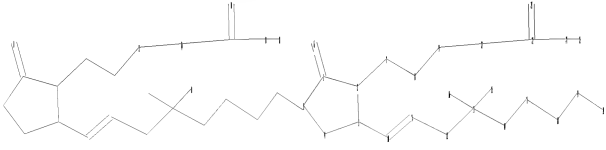

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6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25
ring nodes :
1  2  3  4  5
chain bonds :
1-6  2-7  3-10  7-8  8-9  9-21  10-11  11-12  12-13  13-14  13-15  13-16  14-17
17-18  18-19  19-20  21-22  22-23  22-24  24-25
ring bonds :
1-2  1-5  2-3  3-4  4-5
exact/norm bonds :
1-2  1-5  1-6  2-3  3-4  4-5  8-9  9-21  13-15  21-22
exact bonds :
2-7  3-10  7-8  10-11  11-12  12-13  13-14  13-16  14-17  17-18  18-19  19-20
24-25
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normalized bonds :
22-23 22-24

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS
18:CLASS 19:CLASS 20:CLASS 21:Atom 22:CLASS 23:CLASS 24:CLASS 25:CLASS

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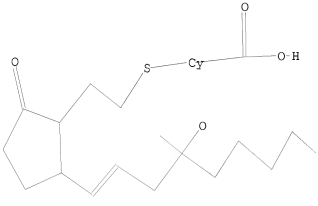

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED -   9 TO ITERATE

100.0% PROCESSED   9 ITERATIONS   0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS: 9 TO   360
PROJECTED ANSWERS: 0 TO   0

L2   0 SEA SSS SAM L1

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THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 185.40 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
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100.0% PROCESSED   253 ITERATIONS   10 ANSWERS
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=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FULL ESTIMATED COST                                  185.88     186.10

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FILE COVERS 1907 - 14 Dec 2009  VOL 151 ISS 25
FILE LAST UPDATED: 13 Dec 2009  (20091213/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED:  Oct 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE:  Aug 2009

CAplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2009.

CAS Information Use Policies apply and are available at:

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This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> s l3
L4           2 L3

=> d ibib abs hitstr 1-2

L4   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:         2006:1283410  CAPLUS
DOCUMENT NUMBER:          146:39069
TITLE:                    Agents for regeneration and/or protection of nerves
                          containing prostaglandin EP2 receptor agonists
INVENTOR(S):              Ohmoto, Kazuyuki; Kinoshita, Akihiro; Matsuya,
                          Hidekazu
PATENT ASSIGNEE(S):       Ono Pharmaceutical Co., Ltd., Japan
SOURCE:                   PCT Int. Appl., 103pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 Japanese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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     WO 2006129788        A1    20061207    WO 2006-JP311084       20060602
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             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
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KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
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KG, KZ, MD, RU, TJ, TM

AU	2006253356	A1	20061207	AU 2006-253356	20060602
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EP	1886693	A1	20080213	EP 2006-756919	20060602
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MX	2007015230	A	20080221	MX 2007-15230	20071203
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IN	2007CN05554	A	20080328	IN 2007-CN5554	20071203
US	20090227644	A1	20090910	US 2007-916374	20071203
KR	2008016926	A	20080222	KR 2008-700009	20080102
CN	101237885	A	20080806	CN 2006-80028685	20080203

PRIORITY APPLN. INFO.:	JP 2005-164458	A	20050603
	WO 2006-JP11084	W	20060602
	WO 2006-JP311084	W	20060602

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 146:39069

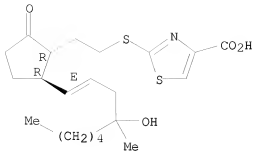
AB An EP2 agonist which may have an EP3 agonistic effect has an effect of regenerating and/or protecting nerves, and is therefore useful as a therapeutic agent for a disease of the peripheral nervous system, such as a lower or upper motor neuron disease, a nerve root disease, plexopathy, thoracic outlet compression syndrome, peripheral neuropathy, neurofibromatosis and neuromuscular transmission disease. An EP2 agonist which has an EP3 agonistic effect is a safe and effective agent for the regeneration and/or protection of nerves which has little influence on the circulatory system. For example 2-[[2-[(1R,2R)-2-[(1E,4S)-5-cyclohexyl-4-hydroxy-4-methyl-1-penten-1-yl]-5-oxocyclopentyl]ethyl]thio]-1,3-thiazole-4-carboxylic acid (I) was prepared, and examined for its effect on cauda equina repair-promoting effect in rats. Also, a tablet containing I 0.5 mg/tablet was formulated.

IT 853999-74-3P 916317-64-1P 916317-68-5P
916317-76-5P 916317-77-6P 916317-81-2P
916317-91-4P 916318-01-9P 916318-02-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(agents for regeneration and/or protection of nerves containing prostaglandin EP2 receptor agonists)

RN 853999-74-3 CAPLUS

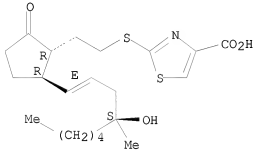
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



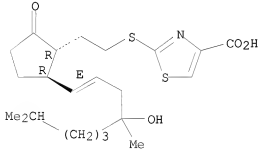
RN 916317-64-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



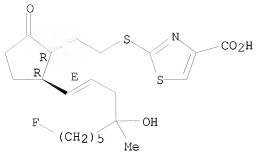
RN 916317-68-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4,8-dimethyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



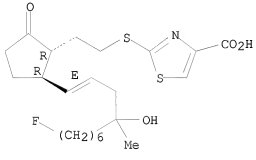
RN 916317-76-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-9-fluoro-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



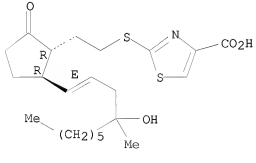
RN 916317-77-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-10-fluoro-4-hydroxy-4-methyl-1-decen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 916317-81-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-decen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



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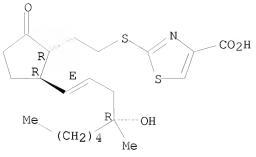
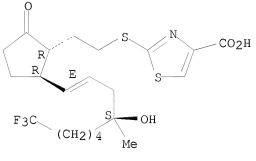
Absolute stereochemistry.
Double bond geometry as shown.



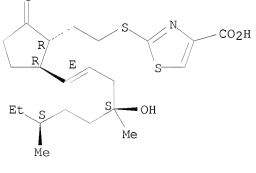
RN 916318-01-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,5R)-2-oxo-5-[(1E,4S)-9,9,9-trifluoro-4-hydroxy-4-methyl-1-nonen-1-yl]cyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 916318-02-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S,7S)-4-hydroxy-4,7-dimethyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:523298 CAPLUS
DOCUMENT NUMBER: 143:53530
TITLE: Blood flow promoters for cauda equina tissues

containing prostaglandin-like compounds
INVENTOR(S): Ohmoto, Kazuyuki; Kinoshita, Akihiro; Kamanaka, Yoshihisa; Matsuya, Hidekazu
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

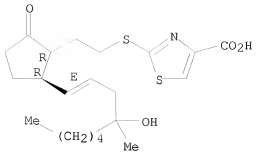
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005053707	A1	20050616	WO 2004-JP17961	20041202
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1707208	A1	20061004	EP 2004-819909	20041202
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
US 20070129327	A1	20070607	US 2007-581619	20070126
PRIORITY APPLN. INFO.:			JP 2003-407675 A	20031205
			WO 2004-JP17961 W	20041202

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 143:53530

AB It is intended to provide highly safe and efficacious blood flow promoters for cauda equina tissues. Among prostaglandin-like compds. having a weak hypotensive effect, compds. having an effect of promoting the blood flow in cauda equina tissues (excluding limaprost) are useful as highly safe blood flow promoters for cauda equina tissues and, therefore, are efficacious in preventing and/or treating lumbar pain, lower limb pain, lower limb palsy, intermittent claudication, vesicorectal failure, hypogonadism, etc. caused by cauda equina injuries. Thus, 2-[[2-[(4S)-4-[(1E,3R)-3-[1-(4-fluorobutyl)cyclobutyl]-3-hydroxy-1-propenyl]-2-oxo-1,3-oxazolidin-3-yl]ethyl]sulfanyl]-1,3-thiazole-4-carboxylic acid (I) was prepared The compound I improved blood flow of cauda equina in rats without significantly affecting blood pressure. Also, a tablet containing I 0.5 mg/tablet was formulated.

IT 853999-74-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(blood flow promoters for cauda equina tissues containing prostaglandin-like compds.)
RN 853999-74-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



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REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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FULL ESTIMATED COST	11.78	197.88
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.64	-1.64

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STRUCTURE FILE UPDATES: 13 DEC 2009 HIGHEST RN 1197170-99-2
DICTIONARY FILE UPDATES: 13 DEC 2009 HIGHEST RN 1197170-99-2

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experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

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STN INTERNATIONAL LOGOFF AT 11:10:43 ON 14 DEC 2009

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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


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 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  AUG 10  Time limit for inactive STN sessions doubles to 40
                  minutes
 NEWS  3  AUG 18  COMPENDEX indexing changed for the Corporate Source
                  (CS) field
 NEWS  4  AUG 24  ENCOMPLIT/ENCOMPLIT2 reloaded and enhanced
 NEWS  5  AUG 24  CA/CAplus enhanced with legal status information for
                  U.S. patents
 NEWS  6  SEP 09  50 Millionth Unique Chemical Substance Recorded in
                  CAS REGISTRY
 NEWS  7  SEP 11  WPIDS, WPINDEX, and WPIX now include Japanese FTERM
                  thesaurus
 NEWS  8  OCT 21  Derwent World Patents Index Coverage of Indian and
                  Taiwanese Content Expanded
 NEWS  9  OCT 21  Derwent World Patents Index enhanced with human
                  translated claims for Chinese Applications and
                  Utility Models
 NEWS 10  NOV 23  Addition of SCAN format to selected STN databases
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 NEWS 12  DEC 01  FRFULL Content and Search Enhancements
 NEWS 13  DEC 01  DGENE, USGENE, and PCTGEN: new percent identity
                  feature for sorting BLAST answer sets
 NEWS 14  DEC 02  Derwent World Patent Index: Japanese FI-TERM
                  thesaurus added
 NEWS 15  DEC 02  PCTGEN enhanced with patent family and legal status
                  display data from INPADOCDB
 NEWS 16  DEC 02  USGENE: Enhanced coverage of bibliographic and
                  sequence information

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              AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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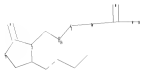

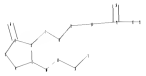

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6 7 8 9 10 11 12 13 14 15 16 17 18
ring nodes :
1 2 3 4 5
chain bonds :
1-6 2-7 3-10 7-8 8-9 9-14 10-11 11-12 12-13 14-15 15-16 15-17 17-18
ring bonds :
1-2 1-5 2-3 3-4 4-5
exact/norm bonds :
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17-18
normalized bonds :
15-16 15-17

G1:C,S

G2:C,N

G3:C,O

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:Atom 15:CLASS 16:CLASS 17:CLASS
18:CLASS

L1 STRUCTURE UPLOADED

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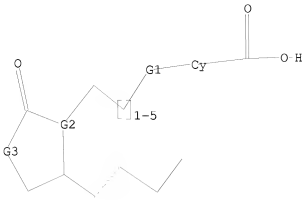
L1 HAS NO ANSWERS
L1 STR



G1 C,S
G2 C,N
G3 C,O

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED - 1525 TO ITERATE

100.0% PROCESSED 1525 ITERATIONS 18 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 28158 TO 32842
PROJECTED ANSWERS: 106 TO 614

L2 18 SEA SSS SAM L1

=> s l1 sss full
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DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 11:22:54 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 29703 TO ITERATE

100.0% PROCESSED 29703 ITERATIONS 325 ANSWERS
SEARCH TIME: 00.00.01

L3 325 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 185.88 186.10

FILE 'CAPLUS' ENTERED AT 11:22:59 ON 14 DEC 2009
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FILE COVERS 1907 - 14 Dec 2009 VOL 151 ISS 25
FILE LAST UPDATED: 13 Dec 2009 (20091213/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2009

CAplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2009.

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This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> s l3
L4 38 L3

=> d ibib abs hitstr 1-38

L4 ANSWER 1 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2009:1048404 CAPLUS
DOCUMENT NUMBER: 151:305240
TITLE: Novel methods for bone treatment by modulating an arachidonic acid metabolic or signaling pathway
INVENTOR(S): O'Connor, James Patrick
PATENT ASSIGNEE(S): Accelalox, Inc., USA
SOURCE: PCT Int. Appl., 89pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009105723	A2	20090827	WO 2009-US34790	20090220
WO 2009105723	A3	20091029		

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: US 2008-30764P P 20080222

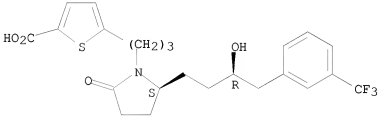
AB Methods for promoting osteogenesis to accelerate or enhance bone fracture healing, treat bone defects, and enhance bone formation are disclosed. The methods rely on in vivo or ex vivo modulation of an arachidonic acid metabolic or signaling pathway in general, and, in particular, utilize 5-lipoxygenase inhibitors, leukotriene A4 hydrolase inhibitors, and/or leukotriene B4 receptor antagonists. These mols. can be delivered alone or in combination with one or more agents that inhibit bone resorption, regulate calcium resorption from bone, enhance bone accumulation, enhance bone formation, induce bone formation, impair growth of microorganisms, reduce inflammation, and/or reduce pain.

IT 431990-08-8, CP432 431990-08-8D, CP432, derivs.
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(novel methods for bone treatment by modulating an arachidonic acid metabolic or signaling pathway)

RN 431990-08-8 CAPLUS

CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-3-hydroxy-4-[3-(trifluoromethyl)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

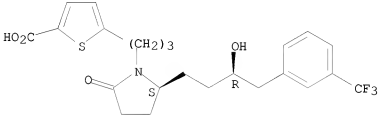
Absolute stereochemistry.



RN 431990-08-8 CAPLUS

CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-3-hydroxy-4-[3-(trifluoromethyl)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:280001 CAPLUS

DOCUMENT NUMBER: 149:323931

TITLE: Pharmacological and functional characterization of novel EP and DP receptor agonists: DP1 receptor mediates penile erection in multiple species

AUTHOR(S): Brugger, Nadia; Kim, Noel N.; Araldi, Gian Luca; Traish, Abdulmaged M.; Palmer, Stephen S.

CORPORATE SOURCE: EMD Serono Research Institute-Medicinal Chemistry, Rockland, MA, USA

SOURCE: Journal of Sexual Medicine (2008), 5(2), 344-356

CODEN: JSMOAN; ISSN: 1743-6095
PUBLISHER: Blackwell Publishing, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

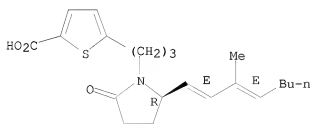
AB Introduction: Despite the widespread use of prostaglandin E1 as an efficacious treatment for male erectile dysfunction for more than two decades, research on prostanoid function in penile physiol. has been limited. Aim: To characterize the pharmacol. and physiol. activity of novel subtype-selective EP and DP receptor agonists. Methods: Radioligand binding and second messenger assays were used to define receptor subtype specificity of the EP and DP agonists. Functional activity was further characterized using isolated human and rabbit penile cavernosal tissue in organ baths. In vivo activity was assessed in rabbits and rats by measuring changes in cavernous pressure after intracavernosal injection of receptor agonists. Main Outcome Measures: Receptor binding and signal transduction, smooth muscle contractile activity, erectile function. Results: In organ bath prepns. of human cavernosal tissue contracted with phenylephrine, EP2- and EP4-selective agonists exhibited variable potency in causing relaxation. One of the compds. caused mild contraction, and none of the compds. was as effective as PGE1 (EC50 = 0.23 μM). There was no consistent correlation between the pharmacol. profile (receptor binding and second messenger assays) of the EP agonists and their effect on cavernosal tissue tone. In contrast, the DP1-selective agonist AS702224 (EC50 = 29 nM) was more effective in relaxing human cavernosal tissue than either PGE1, PGD2 (EC50 = 58 nM), or the DP agonist BW245C (EC50 = 59 nM). In rabbit cavernosal tissue, PGE1 and PGD2 caused only contraction, while AS702224 and BW245C caused relaxation. Intracavernosal administration of AS702224 and BW245C also caused penile tumescence in rabbits and rats. For each compound, the erectile response improved with increasing dose and was significantly higher than vehicle alone. Conclusions: These data suggest that AS702224 is a potent DP1-selective agonist that causes penile erection. The DP1 receptor mediates relaxation in human cavernosal tissue, and stimulates pro-erectile responses in rat and rabbit. Thus, rabbits and rats can be useful models for investigating the physiol. function of DP1 receptors.

IT 757965-74-5
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DP1-selective agonist AS702224 showed greater potency than AS701919 in improving penile erection in multiple species including rabbit, rat and human)

RN 757965-74-5 CAPLUS

CN 2-Thiophenecarboxylic acid, 5-[3-[(2R)-2-[(1E,3E)-3-methyl-1,3-octadien-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2007:201135 CAPLUS
DOCUMENT NUMBER: 146:266827
TITLE: Methods for bone treatment by modulating an arachidonic acid metabolic or signaling pathway
INVENTOR(S): O'Connor, James Patrick
PATENT ASSIGNEE(S): Accelalox, Inc., USA
SOURCE: PCT Int. Appl., 50pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007022427	A2	20070222	WO 2006-US32367	20060818
WO 2007022427	A3	20070830		
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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
AU 2006279325	A1	20070222	AU 2006-279325	20060818
CA 2619608	A1	20070222	CA 2006-2619608	20060818
EP 1947942	A2	20080730	EP 2006-801878	20060818
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
JP 2009504776	T	20090205	JP 2008-527172	20060818
CN 101277614	A	20081001	CN 2006-80036641	20080402
US 20080280826	A1	20081113	US 2008-995529	20080714
PRIORITY APPLN. INFO.:			US 2005-709838P P	20050818
			WO 2006-US32367 W	20060818

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

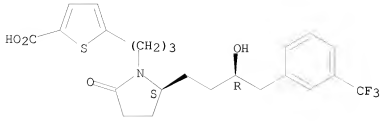
AB Methods for promoting osteogenesis to accelerate or enhance bone fracture healing, treat bone defects, and enhance bone formation are disclosed. The methods modulate an arachidonic acid metabolic or signaling pathway in general, and, in particular, utilize 5- lipoxygenase inhibitors including small interfering RNA (siRNA). These mols. can be delivered alone or in combination with one or more agents that inhibit bone resorption, regulate calcium resorption from bone, enhance bone accumulation, enhance bone formation, induce bone formation, impair growth of microorganisms, reduce inflammation, and/or reduce pain. Administration of 5-lipoxygenase inhibitors nordihydroguaiaretic acid and AA-861 to rats with closed femur fractures resulted in accelerated fracture healing with enhancement of the bone mech. properties.

IT 431990-08-8, CP432
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(arachidonic acid metabolic or signaling pathway modulators for bone healing)

RN 431990-08-8 CAPLUS

CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-3-hydroxy-4-[3-(trifluoromethyl)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 4 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:110373 CAPLUS
DOCUMENT NUMBER: 146:177235
TITLE: Inner ear disorder treatment agents containing PGE receptor-binding compounds and vestibulocochlear nerve regeneration and protection agents containing PEG receptor agonists/antagonists
INVENTOR(S): Yotani, Tsutomu; Nishiura, Akio
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 60pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
JP 2007023028	A	20070201	JP 2006-165837		20060615
PRIORITY APPLN. INFO.:			JP 2005-177012	A	20050616

OTHER SOURCE(S): MARPAT 146:177235

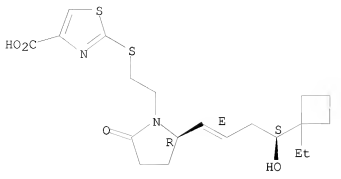
AB Agents for prevention, therapy, and/or progression inhibition of inner ear diseases contain compds. showing PGE receptor-binding activity. Also claimed are agents for regeneration and/or protection of vestibulocochlear nerve containing ≥1 selected from EP2 agonists, EP4 agonists, EP1 antagonists, and EP3 antagonists. The inner ear disease treatment agents may used in combination with ≥1 selected from cholinergic antagonists, antihistaminics, antiviral agents, leukotriene receptor antagonists,anticoagulants, vasodilators, steroids, thrombolytics, vitamin B, their derivs., and inner ear circulation improvers. Thus, i.v. administration of 2-[[2-[(2R)-2-[(3,5-dichlorophenoxy)methyl]-5-oxopyrrolidin-1-yl]ethyl]sulfanyl]-1,3-thiazole-4-carboxylic acid (I) as a EP2 agonist to rats promoted skin circulation on the sole. I also promoted HGF production by human lung fibroblast HFL-1 in a dose-dependent manner. Tablets and injection solns. containing (5Z)-7-[(1R,2R,3R,5R)-5-chloro-2-[(1E,4S)-4-(1-ethylcyclobutyl)-4-hydroxybut-1-enyl]-3-hydroxycyclopentyl]hepta-5-enoic acid were also formulated.

IT 597570-99-5
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inner ear disorder treatment agents containing PGE receptor-binding compds. and vestibulocochlear nerve regeneration and protection agents containing PEG receptor agonists/antagonists)

RN 597570-99-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,4S)-4-(1-ethylcyclobutyl)-4-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L4 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:1283410 CAPLUS
DOCUMENT NUMBER: 146:39069
TITLE: Agents for regeneration and/or protection of nerves containing prostaglandin EP2 receptor agonists
INVENTOR(S): Ohmoto, Kazuyuki; Kinoshita, Akihiro; Matsuya, Hidekazu
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 103pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006129788	A1	20061207	WO 2006-JP311084	20060602
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AU 2006253356	A1	20061207	AU 2006-253356	20060602
CA 2610692	A1	20061207	CA 2006-2610692	20060602
EP 1886693	A1	20080213	EP 2006-756919	20060602
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ZA 2007010414	A	20081126	ZA 2007-10414	20071130
MX 2007015230	A	20080221	MX 2007-15230	20071203
NO 2007006232	A	20080228	NO 2007-6232	20071203
IN 2007CN05554	A	20080328	IN 2007-CN5554	20071203
US 20090227644	A1	20090910	US 2007-916374	20071203
KR 2008016926	A	20080222	KR 2008-700009	20080102
CN 101237885	A	20080806	CN 2006-80028685	20080203
PRIORITY APPLN. INFO.:			JP 2005-164458 A	20050603

WO 2006-JP11084 W 20060602
WO 2006-JP311084 W 20060602

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 146:39069

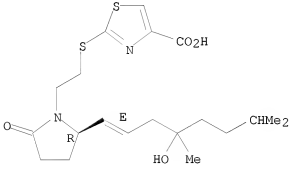
AB An EP2 agonist which may have an EP3 agonistic effect has an effect of regenerating and/or protecting nerves, and is therefore useful as a therapeutic agent for a disease of the peripheral nervous system, such as a lower or upper motor neuron disease, a nerve root disease, plexopathy, thoracic outlet compression syndrome, peripheral neuropathy, neurofibromatosis and neuromuscular transmission disease. An EP2 agonist which has an EP3 agonistic effect is a safe and effective agent for the regeneration and/or protection of nerves which has little influence on the circulatory system. For example 2-[[2-[(1R,2R)-2-[(1E,4S)-5-cyclohexyl-4-hydroxy-4-methyl-1-penten-1-yl]-5-oxocyclopentyl]ethyl]thio]-1,3-thiazole-4-carboxylic acid (I) was prepared, and examined for its effect on cauda equina repair-promoting effect in rats. Also, a tablet containing I 0.5 mg/tablet was formulated.

IT 916317-88-9P 916317-89-0P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(agents for regeneration and/or protection of nerves containing prostaglandin EP2 receptor agonists)

RN 916317-88-9 CAPLUS

CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E)-4-hydroxy-4,7-dimethyl-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

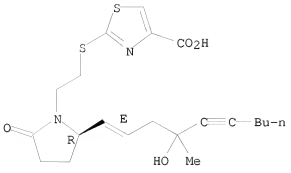
Absolute stereochemistry.
Double bond geometry as shown.



RN 916317-89-0 CAPLUS

CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E)-4-hydroxy-4-methyl-1-decen-5-yn-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

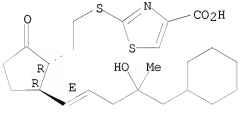


IT 853999-73-2P 853999-74-3P 916317-64-1P
916317-65-2P 916317-66-3P 916317-67-4P
916317-68-5P 916317-69-6P 916317-70-9P
916317-71-0P 916317-72-1P 916317-73-2P
916317-74-3P 916317-75-4P 916317-76-5P
916317-77-6P 916317-78-7P 916317-79-8P
916317-80-1P 916317-81-2P 916317-82-3P
916317-83-4P 916317-84-5P 916317-85-6P
916317-86-7P 916317-87-8P 916317-90-3P
916317-91-4P 916317-92-5P 916317-93-6P
916317-94-7P 916317-95-8P 916317-96-9P
916317-97-0P 916317-98-1P 916317-99-2P
916318-00-8P 916318-01-9P 916318-02-0P
916318-03-1P 916318-04-2P 916318-05-3P
916318-06-4P 916318-07-5P 916318-08-6P
916318-09-7P 916318-10-0P 916318-11-1P
916318-12-2P 916318-13-3P 916318-14-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(agents for regeneration and/or protection of nerves containing prostaglandin EP2 receptor agonists)

RN 853999-73-2 CAPLUS

CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-5-cyclohexyl-4-hydroxy-4-methyl-1-penten-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

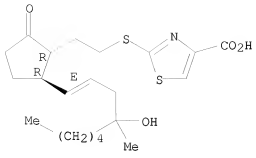
Absolute stereochemistry.
Double bond geometry as shown.



RN 853999-74-3 CAPLUS

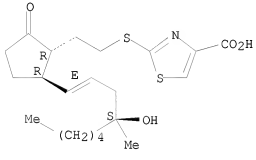
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



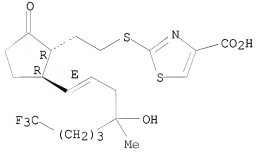
RN 916317-64-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



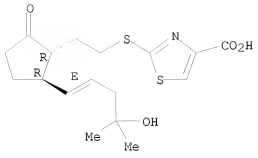
RN 916317-65-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,5R)-2-oxo-5-[(1E)-8,8,8-trifluoro-4-hydroxy-4-methyl-1-octen-1-yl]cyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



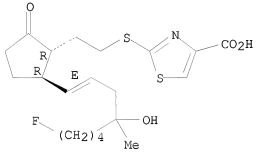
RN 916317-66-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-penten-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



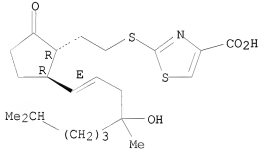
RN 916317-67-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-8-fluoro-4-hydroxy-4-methyl-1-octen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



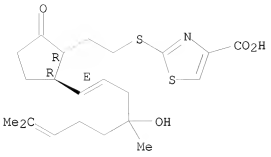
RN 916317-68-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4,8-dimethyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



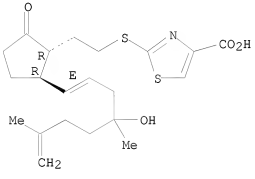
RN 916317-69-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4,8-dimethyl-1,7-nonadien-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



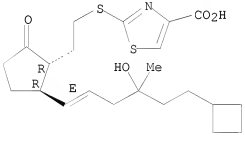
RN 916317-70-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4,7-dimethyl-1,7-octadien-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



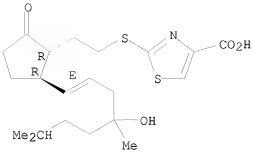
RN 916317-71-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-6-cyclobutyl-4-hydroxy-4-methyl-1-hexen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



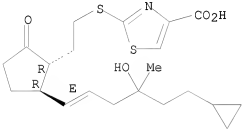
RN 916317-72-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4,7-dimethyl-1-octen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



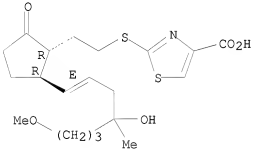
RN 916317-73-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-6-cyclopropyl-4-hydroxy-4-methyl-1-hexen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



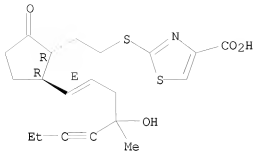
RN 916317-74-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-7-methoxy-4-methyl-1-hepten-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



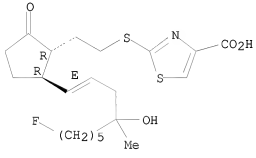
RN 916317-75-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-octen-5-yn-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



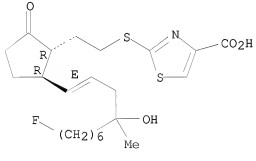
RN 916317-76-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-9-fluoro-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



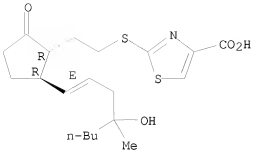
RN 916317-77-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-10-fluoro-4-hydroxy-4-methyl-1-decen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



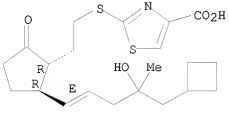
RN 916317-78-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-octen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



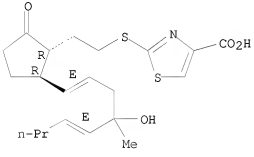
RN 916317-79-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-5-cyclobutyl-4-hydroxy-4-methyl-1-penten-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



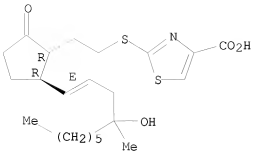
RN 916317-80-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,5E)-4-hydroxy-4-methyl-1,5-nonadien-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



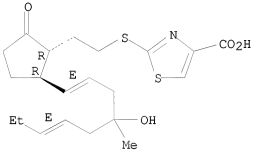
RN 916317-81-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-decen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



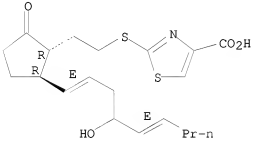
RN 916317-82-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,6E)-4-hydroxy-4-methyl-1,6-nonadien-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



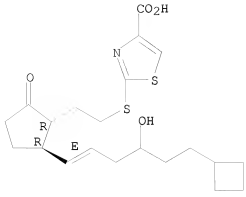
RN 916317-83-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,5E)-4-hydroxy-1,5-nonadien-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



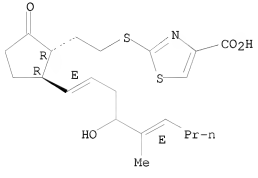
RN 916317-84-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-6-cyclobutyl-4-hydroxy-1-hexen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



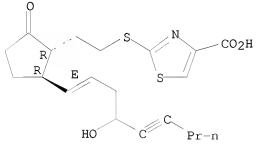
RN 916317-85-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,5E)-4-hydroxy-5-methyl-1,5-nonadien-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



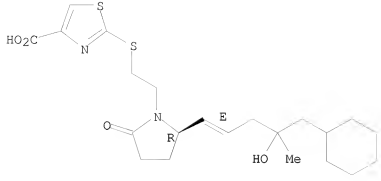
RN 916317-86-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-1-nonen-5-yn-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



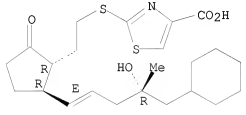
RN 916317-87-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E)-5-cyclohexyl-4-hydroxy-4-methyl-1-penten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



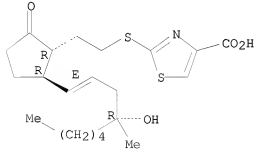
RN 916317-90-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4R)-5-cyclohexyl-4-hydroxy-4-methyl-1-penten-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



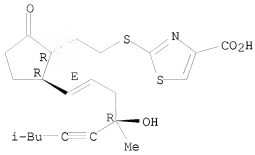
RN 916317-91-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4R)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



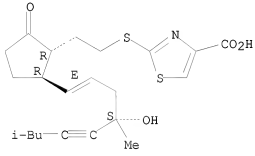
RN 916317-92-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4R)-4-hydroxy-4,8-dimethyl-1-nonen-5-yn-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



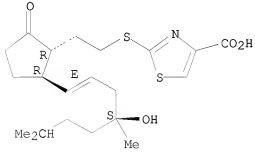
RN 916317-93-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S)-4-hydroxy-4,8-dimethyl-1-nonen-5-yn-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



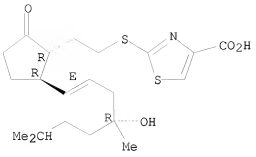
RN 916317-94-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S)-4-hydroxy-4,7-dimethyl-1-octen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



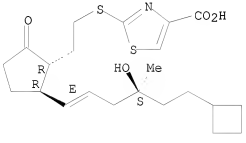
RN 916317-95-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4R)-4-hydroxy-4,7-dimethyl-1-octen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



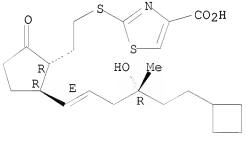
RN 916317-96-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S)-6-cyclobutyl-4-hydroxy-4-methyl-1-hexen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



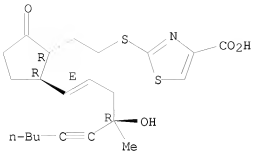
RN 916317-97-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4R)-6-cyclobutyl-4-hydroxy-4-methyl-1-hexen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



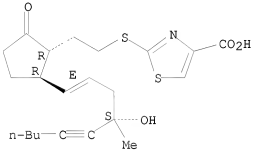
RN 916317-98-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4R)-4-hydroxy-4-methyl-1-decen-5-yn-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



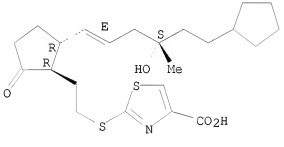
RN 916317-99-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S)-4-hydroxy-4-methyl-1-decen-5-yn-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



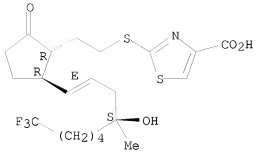
RN 916318-00-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S)-6-cyclopentyl-4-hydroxy-4-methyl-1-hexen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



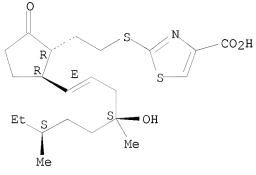
RN 916318-01-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,5R)-2-oxo-5-[(1E,4S)-9,9,9-trifluoro-4-hydroxy-4-methyl-1-nonen-1-yl]cyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



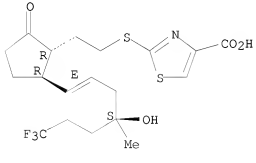
RN 916318-02-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S,7S)-4-hydroxy-4,7-dimethyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



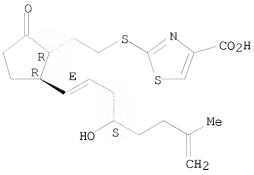
RN 916318-03-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,5R)-2-oxo-5-[(1E,4S)-7,7,7-trifluoro-4-hydroxy-4-methyl-1-hepten-1-yl]cyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



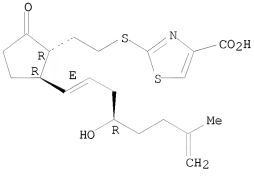
RN 916318-04-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S)-4-hydroxy-7-methyl-1,7-octadien-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



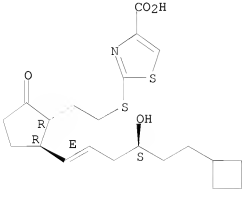
RN 916318-05-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4R)-4-hydroxy-7-methyl-1,7-octadien-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 916318-06-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S)-6-cyclobutyl-4-hydroxy-1-hexen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

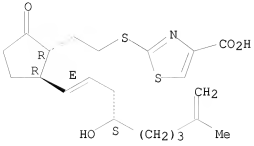
Absolute stereochemistry.
Double bond geometry as shown.



RN 916318-07-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S)-4-hydroxy-8-methyl-1,8-nonadien-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

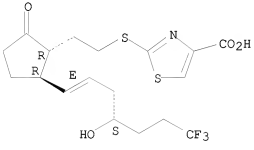
Absolute stereochemistry.

Double bond geometry as shown.



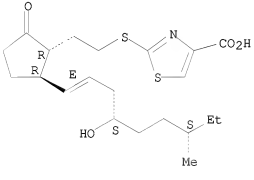
RN 916318-08-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,5R)-2-oxo-5-[(1E,4S)-7,7,7-trifluoro-4-hydroxy-1-hepten-1-yl]cyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



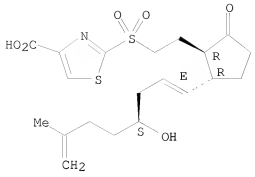
RN 916318-09-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S,7S)-4-hydroxy-7-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



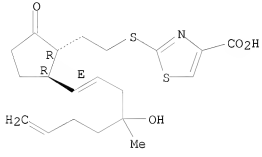
RN 916318-10-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S)-4-hydroxy-7-methyl-1,7-octadien-1-yl]-5-oxocyclopentyl]ethyl]sulfonyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



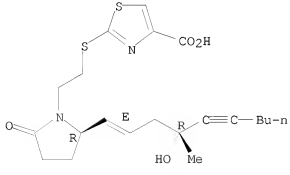
RN 916318-11-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1,7-octadien-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



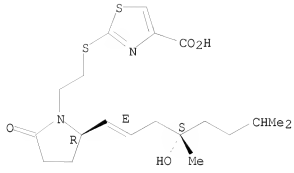
RN 916318-12-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,4R)-4-hydroxy-4-methyl-1-decen-5-yn-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



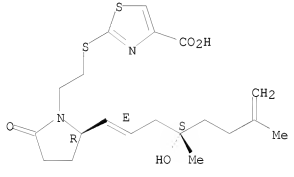
RN 916318-13-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,4S)-4-hydroxy-4,7-dimethyl-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 916318-14-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,4S)-4-hydroxy-4,7-dimethyl-1,7-octadien-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:1247594 CAPLUS
DOCUMENT NUMBER: 146:780
TITLE: Preventives and/or remedies for neurodegeneration containing prostaglandin EP4 receptor agonists
INVENTOR(S): Maruyama, Takayuki
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 59pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006321737	A	20061130	JP 2005-144960	20050518
PRIORITY APPLN. INFO.:			JP 2005-144960	20050518

OTHER SOURCE(S): MARPAT 146:780

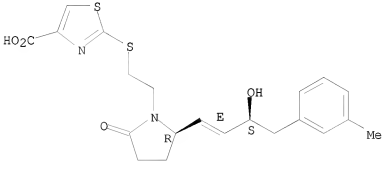
AB The invention relates to a preventive and/or remedy for neurodegeneration characterized by containing a prostaglandin EP4 receptor agonist having excitatory amino acid-induced neuronal apoptosis-protecting effect. The preventive and/or remedy may further include other active agent, e.g. a

dopamine receptor agonist, monoamine oxidase inhibitor, COMT inhibitor, etc. For example, the effect of [[3-[[(1R,2S,3R)-3-hydroxy-2-[(1E,3S)-3-hydroxy-4-[3-(methoxymethyl)phenyl]but-1-enyl]-5-oxocyclopentyl]sulfanyl]propyl]sulfanyl]acetic acid (I) on NMDA-induced neuronal death model mice was examined Also, a tablet containing I 30 μg/tablet was formulated.

IT 494223-86-8 494223-92-6 597571-01-2
729611-52-3
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preventives and/or remedies for neurodegeneration containing prostaglandin EP4 receptor agonists)

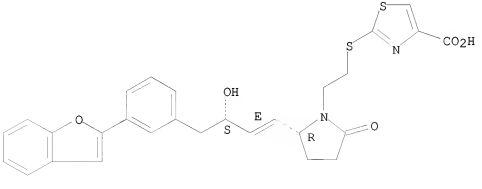
RN 494223-86-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-(3-methylphenyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 494223-92-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-[3-(2-benzofuranyl)phenyl]-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

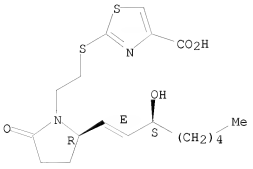
Absolute stereochemistry.
Double bond geometry as shown.



RN 597571-01-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

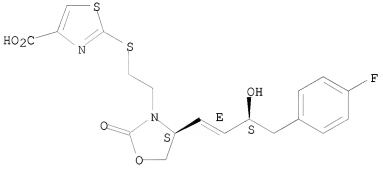
Absolute stereochemistry.

Double bond geometry as shown.



RN 729611-52-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E,3S)-4-(4-fluorophenyl)-3-hydroxy-1-buten-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L4 ANSWER 7 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:426911 CAPLUS
DOCUMENT NUMBER: 145:306691
TITLE: A nonprostanoid EP4 receptor selective prostaglandin E2 agonist restores bone mass and strength in aged, ovariectomized rats
AUTHOR(S): Ke, Hua Zhu; Crawford, D. Todd; Qi, Hong; Simmons, Hollis A.; Owen, Thomas A.; Paralkar, Vishwas M.; Li, Mei; Lu, Bihong; Grasser, William A.; Cameron, Kimberly O.; Lefker, Bruce A.; DaSilva-Jardine, Paul; Scott, Dennis O.; Zhang, Qing; Tian, Xiao Yan; Jee, Webster S. S.; Brown, Thomas A.; Thompson, David D.
CORPORATE SOURCE: Groton Laboratories, Pfizer Global Research and Development, Groton, CT, USA
SOURCE: Journal of Bone and Mineral Research (2006), 21(4), 565-575
CODEN: JBMREJ; ISSN: 0884-0431
PUBLISHER: American Society for Bone and Mineral Research
DOCUMENT TYPE: Journal
LANGUAGE: English
AB CP432 is a newly discovered, nonprostanoid EP4 receptor selective prostaglandin E2 agonist. CP432 stimulates trabecular and cortical bone formation and restores bone mass and bone strength in aged ovariectomized rats with established osteopenia. Introduction: The purpose of this study

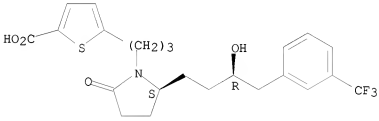
was to determine whether a newly discovered, nonprostanoid EP4 receptor selective prostaglandin E2 (PGE2) agonist, CP432, could produce bone anabolic effects in aged, ovariectomized (OVX) rats with established osteopenia. Materials and Methods: CP432 at 0.3, 1, or 3 mg/kg/day was given for 6 wk by s.c. injection to 12-mo-old rats that had been OVX for 8.5 mo. The effects on bone mass, bone formation, bone resorption, and bone strength were determined Results: Total femoral BMD increased significantly in OVX rats treated with CP432 at all doses. CP432 completely restored trabecular bone volume of the third lumbar vertebral body accompanied with a dose-dependent decrease in osteoclast number and osteoclast surface and a dose-dependent increase in mineralizing surface, mineral apposition rate, and bone formation rate-tissue reference in OVX rats. CP432 at 1 and 3 mg/kg/day significantly increased total tissue area, cortical bone area, and periosteal and endocortical bone formation in the tibial shafts compared with both sham and OVX controls. CP432 at all doses significantly and dose-dependently increased ultimate strength in the fifth lumber vertebral body compared with both sham and OVX controls. At 1 and 3 mg/kg/day, CP432 significantly increased maximal load in a three-point bending test of femoral shaft compared with both sham and OVX controls. Conclusions: CP432 completely restored trabecular and cortical bone mass and strength in established osteopenic, aged OVX rats by stimulating bone formation and inhibiting bone resorption on trabecular and cortical surfaces.

IT 431990-08-8, CP 432
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nonprostanoid EP4 receptor selective prostaglandin E2 agonist CP432 stimulates trabecular and cortical bone formation and restores bone mass and bone strength in aged ovariectomized rat with osteopenia)

RN 431990-08-8 CAPLUS

CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-3-hydroxy-4-[3-(trifluoromethyl)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:381177 CAPLUS

DOCUMENT NUMBER: 144:419688

TITLE: Medicinal composition containing EP2 agonists for inhalation

INVENTOR(S): Yamamoto, Shigeki; Shiroya, Tsutomu; Kadode, Michiaki; Maruyama, Toru; Tani, Kousuke; Nagase, Toshihiko

PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXXD2

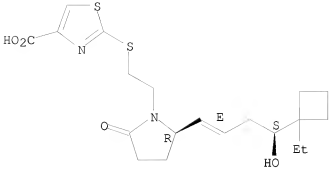
DOCUMENT TYPE: Patent

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006043655	A1	20060427	WO 2005-JP19376	20051021
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1806148	A1	20070711	EP 2005-795486	20051021
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
US 20080114043	A1	20080515	US 2007-665966	20070420
PRIORITY APPLN. INFO.:			JP 2004-307902 A	20041022
			WO 2005-JP19376 W	20051021

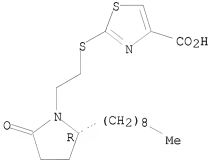
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 144:419688
AB Disclosed is a medicinal composition for inhalation containing a continuous-release type prodrug of an EP2 agonist topically exhibits a prolonged bronchodilating and antiinflammatory effects. Namely, the medicinal composition for inhalation containing a continuous-release type prodrug of an EP2 agonist is useful as a safe preventive and/or a remedy for respiratory diseases (for example, asthma, pulmonary injury, pulmonary fibrosis, pulmonary emphysema, bronchitis, chronic obstructive pulmonary disease, adult respiratory distress syndrome, cystic fibrosis, pulmonary hypertension or the like) without causing any systemic effect such as lowering blood pressure. Thus, a safe and useful remedy for respiratory diseases is provided. For example, the long-lasting bronchodilatory effect of undecyl 2-[[2-[(2R)-2-[(3,5-dichlorophenoxy)methyl]-5-oxopyrrolidin-1-yl]ethyl]sulfanyl]-1,3-thiazole-4-carboxylate was examined in guinea pigs.
IT 597570-99-5
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medicinal composition containing EP2 agonists for inhalation)
RN 597570-99-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,4S)-4-(1-ethylcyclobutyl)-4-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT 883978-52-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of medicinal composition containing EP2 agonists for inhalation)
RN 883978-52-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-nonyl-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

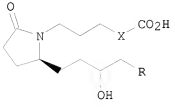
Absolute stereochemistry.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:188867 CAPLUS
DOCUMENT NUMBER: 144:412311
TITLE: Discovery of highly selective EP4 receptor agonists that stimulate new bone formation and restore bone mass in ovariectomized rats
AUTHOR(S): Cameron, Kimberly O.; Lefker, Bruce A.; Chu-Moyer, Margaret Y.; Crawford, David T.; Jardine, Paul DaSilva; DeNinno, Shari L.; Gilbert, Sandra; Grasser, William A.; Ke, HuaZhu; Lu, Bihong; Owen, Thomas A.; Paralkar, Vishwas M.; Qi, Hong; Scott, Dennis O.; Thompson, David D.; Tjoa, Christina M.; Zawistoski, Michael P.
CORPORATE SOURCE: Groton Laboratories, Department of Cardiovascular and Metabolic Diseases, Pfizer Global Research and Development, Groton, CT, 06340, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (2006), 16(7), 1799-1802
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 144:412311
GI



I

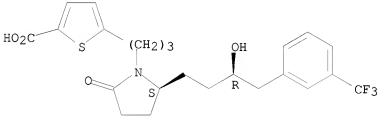
AB Heptanoic acid lactams and analogs I [X = (CH2)3, 1,4-phenylene, 2,5-thiophenediyl; R = Ph, 4-FC6H4, 3-PhOC6H4, 2-naphthyl, etc.] were identified as highly selective EP4 agonists via high throughput screening. Lead optimization led to the identification of lactams with a 30-fold increase in EP4 potency in vitro. Compds. demonstrated robust bone anabolic effects when administered in vivo in rat models of osteoporosis.

IT 431990-08-8P
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of carboxylic acid-functionalized (hydroxyalkyl)pyrrolidinones as selective EP4 receptor agonists that stimulate new bone formation and restore bone mass in ovariectomized rats)

RN 431990-08-8 CAPLUS

CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-3-hydroxy-4-[3-(trifluoromethyl)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

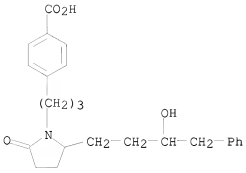
Absolute stereochemistry.



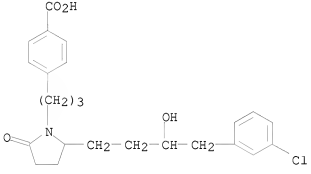
IT 431988-78-2P 431988-90-8P 431988-96-4P
431989-00-3P 431989-07-0P 431989-10-5P
431989-58-1P 431989-71-8P 431989-74-1P
431989-79-6P 431989-84-3P 431989-90-1P
431990-00-0P 431990-04-4P 884490-38-4P
884490-40-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of carboxylic acid-functionalized (hydroxyalkyl)pyrrolidinones as selective EP4 receptor agonists that stimulate new bone formation and restore bone mass in ovariectomized rats)

RN 431988-78-2 CAPLUS

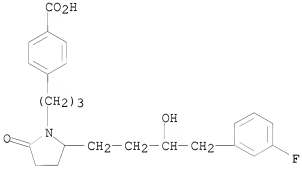
CN Benzoic acid, 4-[3-[2-(3-hydroxy-4-phenylbutyl)-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



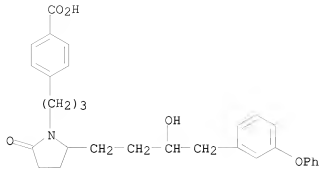
RN 431988-90-8 CAPLUS
CN Benzoic acid, 4-[3-[2-[4-(3-chlorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



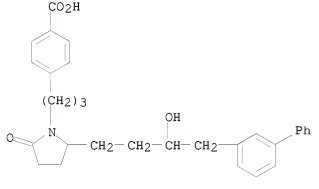
RN 431988-96-4 CAPLUS
CN Benzoic acid, 4-[3-[2-[4-(3-fluorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



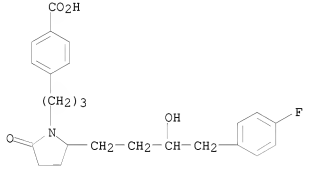
RN 431989-00-3 CAPLUS
CN Benzoic acid, 4-[3-[2-[3-hydroxy-4-(3-phenoxyphenyl)butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



RN 431989-07-0 CAPLUS
CN Benzoic acid, 4-[3-[2-(4-[1,1'-biphenyl]-3-yl-3-hydroxybutyl)-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

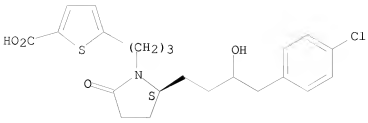


RN 431989-10-5 CAPLUS
CN Benzoic acid, 4-[3-[2-[4-(4-fluorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



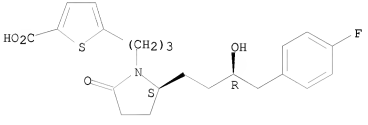
RN 431989-58-1 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[4-(4-chlorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



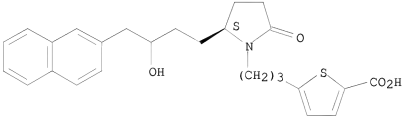
RN 431989-71-8 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-4-(4-fluorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



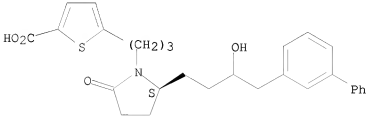
RN 431989-74-1 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[3-hydroxy-4-(2-naphthalenyl)butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



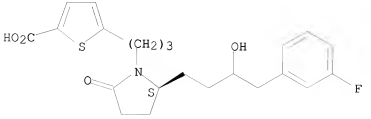
RN 431989-79-6 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-(4-[1,1'-biphenyl]-3-yl-3-hydroxybutyl)-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



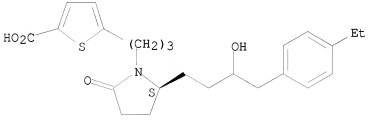
RN 431989-84-3 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[4-(3-fluorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



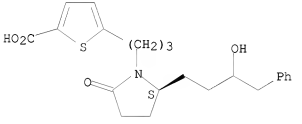
RN 431989-90-1 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[4-(4-ethylphenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



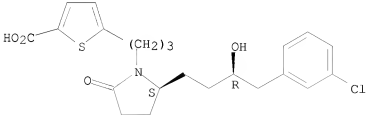
RN 431990-00-0 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-(3-hydroxy-4-phenylbutyl)-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 431990-04-4 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-4-(3-chlorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

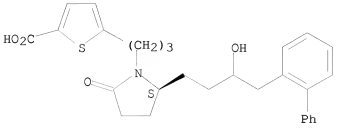
Absolute stereochemistry.



RN 884490-38-4 CAPLUS

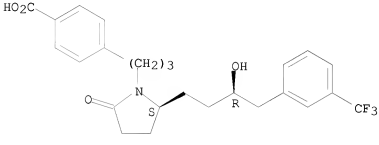
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-(4-[1,1'-biphenyl]-2-yl-3-hydroxybutyl)-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 884490-40-8 CAPLUS
CN Benzoic acid, 4-[3-[(2S)-2-[(3R)-3-hydroxy-4-[3-(trifluoromethyl)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:151237 CAPLUS
DOCUMENT NUMBER: 144:205827
TITLE: Preventive and/or remedy for hyperkalemia containing EP4 agonist
INVENTOR(S): Kuwahara, Atsukazu; Suzuki, Yuichi; Maruyama, Takayuki
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 111 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006016695	A1	20060216	WO 2005-JP14885	20050809
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,				

SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

EP 1782829 A1 20070509 EP 2005-770532 20050809

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR

US 20080234337 A1 20080925 US 2007-660048 20070212

PRIORITY APPLN. INFO.: JP 2004-232984 A 20040810

WO 2005-JP14885 W 20050809

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 144:205827

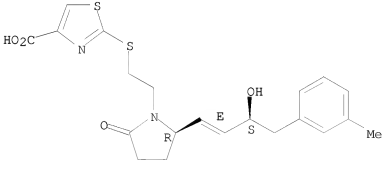
AB Disclosed is a preventive and/or remedy for hyperkalemia and a potassium excretion promoter containing an prostaglandin receptor EP4 agonist. Because of promoting potassium excretion, an EP4 agonist is useful as a preventive and/or remedy for hyperkalemia. A selective EP4 agonist is useful as a preventive and/or remedy for hyperkalemia having no side effect. Furthermore, an EP4 agonist is useful in ameliorating various symptoms of hyperkalemia (for example, sensation abnormality, error of perception, sense of exhaustion, muscle paralysis, nausea, vomiting, abdominal pain, diarrhea, arrhythmia, atrioventricular block, ventricular fibrillation, atrial fibrillation, asystole, respiratory arrest and/or respiratory distress and so on). For example, the EP4 agonistic effect of [[3-[[(1R,2S,3R)-3-hydroxy-2-[(1E,3S)-3-hydroxy-4-[3-(methoxymethyl)phenyl]but-1-enyl]-5-oxocyclopentyl]sulfanyl]propyl]sulfanyl]acetic acid (I) was in vitro examined Also a tablet containing I 30 μg/tablet was formulated.

IT 494223-86-8 494223-92-6 597571-01-2
729611-52-3
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preventive and/or remedy for hyperkalemia containing EP4 agonist)

RN 494223-86-8 CAPLUS

CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-(3-methylphenyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

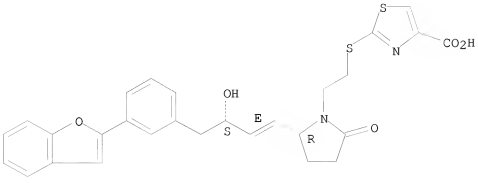
Absolute stereochemistry.
Double bond geometry as shown.



RN 494223-92-6 CAPLUS

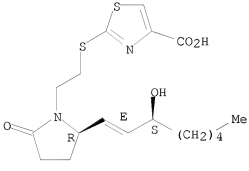
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-[3-(2-benzofuranyl)phenyl]-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



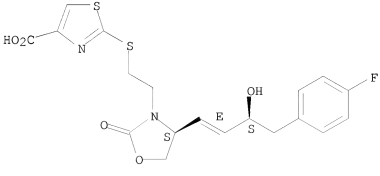
RN 597571-01-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 729611-52-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E,3S)-4-(4-fluorophenyl)-3-hydroxy-1-buten-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

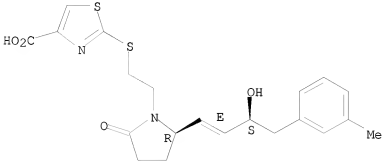
L4 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:149115 CAPLUS
DOCUMENT NUMBER: 144:205819
TITLE: Preventive and/or remedy for lower urinary tract diseases containing EP4 agonist
INVENTOR(S): Okada, Hiroki; Maruyama, Takayuki
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 119 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006016689	A1	20060216	WO 2005-JP14875	20050809
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1782830	A1	20070509	EP 2005-770606	20050809
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
US 20080021021	A1	20080124	US 2007-660043	20070212
PRIORITY APPLN. INFO.:			JP 2004-232985 A	20040810
			WO 2005-JP14875 W	20050809

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 144:205819
AB Disclosed are (1) a preventive and/or a remedy for lower urinary tract diseases such as inflammation in the lower urinary tract, cystitis (interstitial cystitis, etc.) and urethritis; (2) an agent for improving bladder compliance and/or bladder capacity; and (3) an agent for protecting bladder mucosa and/or bladder epithelial cells and/or promoting the regeneration thereof; each containing an EP4 agonist. An EP4 agonist is useful in ameliorating symptoms of lower urinary tract diseases such as (1) frequent urination, (2) urgency of urination, (3) pain in the reproductive organs and/or lower urinary tract (for example, bladder pain, urinary tract pain, vulvar pain, vaginal pain, scrotal pain, perineal pain, pelvic pain, etc.) and/or (4) unpleasantness in the reproductive organs and/or lower urinary tract. Among all, a selective EP4 agonist is useful as a preventive and/or remedy for lower urinary tract diseases having no side effect. For example, the effect of 4-[[2-[(2R)-2-[(1E,3S)-4-(4-fluorophenyl)-3-hydroxybut-1-enyl]-5-oxopyrrolidin-1-yl]ethyl]sulfanyl]butanoic acid (I) in cystitis model rats was examined Also, a tablet containing I 30 μg/tablet was formulated.
IT 494223-86-8 494223-92-6 597571-01-2
729611-52-3
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preventive and/or remedy for lower urinary tract diseases containing EP4 agonists)
RN 494223-86-8 CAPLUS

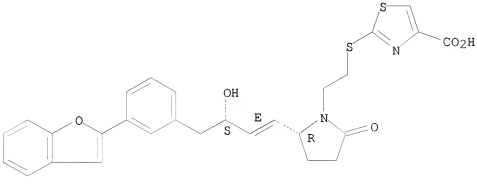
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-(3-methylphenyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



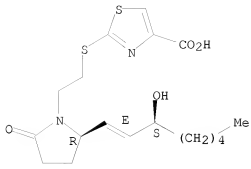
RN 494223-92-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-[3-(2-benzofuranyl)phenyl]-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



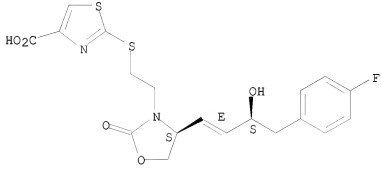
RN 597571-01-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 729611-52-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E,3S)-4-(4-fluorophenyl)-3-hydroxy-1-buten-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)
REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:588642 CAPLUS
DOCUMENT NUMBER: 143:91468
TITLE: Continuous combination therapy with selective prostaglandin EP4 receptor agonists and an estrogen for the treatment of conditions that present with low bone mass
INVENTOR(S): Ke, Hua Zhu; Thompson, David Duane
PATENT ASSIGNEE(S): Pfizer Products Inc., USA
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005060946	A1	20050707	WO 2004-IB4049	20041206
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				

GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG

CA 2549935	A1	20050707	CA 2004-2549935		20041206
EP 1696893	A1	20060906	EP 2004-801348		20041206
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS					
BR 2004017621	A	20070410	BR 2004-17621		20041206
MX 2006006810	A	20060823	MX 2006-6810		20060615
US 20070191319	A1	20070816	US 2006-596504		20060615
PRIORITY APPLN. INFO.:			US 2003-530839P	P	20031217
			WO 2004-IB4049	W	20041206

OTHER SOURCE(S): CASREACT 143:91468; MARPAT 143:91468

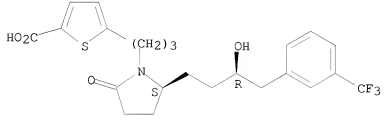
AB This invention is directed to methods for treating conditions which present with low bone mass in a patient in need thereof using continuous combination therapy with a synergistically effective combination of an EP4 receptor selective agonist or a pharmaceutically acceptable salt thereof, such as 5-(3-{2S-[3R-hydroxy-4-(3-trifluoromethyl-phenyl)-butyl]-5-oxo-pyrrolidin-1-yl}propyl)thiophene-2-carboxylic acid (I) or a pharmaceutically acceptable salt thereof; and an estrogen or a pharmaceutically effective salt thereof. The present methods are useful for treating conditions that present with low bone mass. I was prepared and data show a synergistic effect of I and 17β-estradiol given by continuous slow release administration in ovariectomized rats.

IT 431990-08-8
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(continuous combination therapy with selective prostaglandin EP4 receptor agonists and an estrogen for the treatment of conditions that present with low bone mass)

RN 431990-08-8 CAPLUS

CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-3-hydroxy-4-[3-(trifluoromethyl)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.

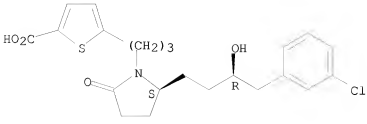


IT 431990-04-4 431991-28-5
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(continuous combination therapy with selective prostaglandin EP4 receptor agonists and an estrogen for the treatment of conditions that present with low bone mass)

RN 431990-04-4 CAPLUS

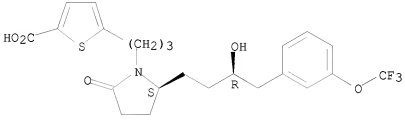
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-4-(3-chlorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 431991-28-5 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-3-hydroxy-4-[3-(trifluoromethoxy)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:523298 CAPLUS
DOCUMENT NUMBER: 143:53530
TITLE: Blood flow promoters for cauda equina tissues containing prostaglandin-like compounds
INVENTOR(S): Ohmoto, Kazuyuki; Kinoshita, Akihiro; Kamanaka, Yoshihisa; Matsuya, Hidekazu
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005053707	A1	20050616	WO 2004-JP17961	20041202
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1707208	A1	20061004	EP 2004-819909	20041202

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS

US 20070129327 A1 20070607 US 2007-581619 20070126

PRIORITY APPLN. INFO.: JP 2003-407675 A 20031205

WO 2004-JP17961 W 20041202

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 143:53530

AB It is intended to provide highly safe and efficacious blood flow promoters for cauda equina tissues. Among prostaglandin-like compds. having a weak hypotensive effect, compds. having an effect of promoting the blood flow in cauda equina tissues (excluding limaprost) are useful as highly safe blood flow promoters for cauda equina tissues and, therefore, are efficacious in preventing and/or treating lumbar pain, lower limb pain, lower limb palsy, intermittent claudication, vesicorectal failure, hypogonadism, etc. caused by cauda equina injuries. Thus, 2-[[2-[(4S)-4-[(1E,3R)-3-[1-(4-fluorobutyl)cyclobutyl]-3-hydroxy-1-propenyl]-2-oxo-1,3-oxazolidin-3-yl]ethyl]sulfanyl]-1,3-thiazole-4-carboxylic acid (I) was prepared The compound I improved blood flow of cauda equina in rats without significantly affecting blood pressure. Also, a tablet containing I 0.5 mg/tablet was formulated.

IT 853999-43-6P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

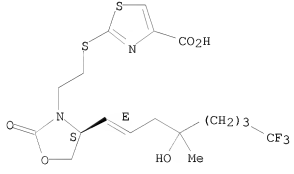
(blood flow promoters for cauda equina tissues containing prostaglandin-like compds.)

RN 853999-43-6 CAPLUS

CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-2-oxo-4-[(1E)-8,8,8-trifluoro-4-hydroxy-4-methyl-1-octen-1-yl]-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

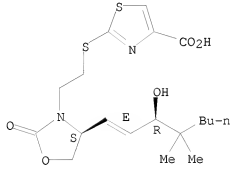


IT 853998-78-4P	853998-80-8P	853998-83-1P
853998-84-2P	853998-85-3P	853998-86-4P
853998-87-5P	853998-88-6P	853998-90-0P
853998-95-5P	853998-96-6P	853999-00-5P
853999-03-8P	853999-04-9P	853999-16-3P
853999-17-4P	853999-18-5P	853999-21-0P
853999-23-2P	853999-25-4P	853999-27-6P
853999-38-9P	853999-39-0P	853999-40-3P
853999-41-4P	853999-42-5P	853999-45-8P
853999-46-9P	853999-47-0P	853999-48-1P
853999-49-2P	853999-50-5P	853999-51-6P
853999-52-7P	853999-53-8P	853999-54-9P
853999-55-0P	853999-56-1P	853999-57-2P
853999-58-3P	853999-59-4P	853999-60-7P

853999-61-8P 853999-62-9P 853999-63-0P
853999-65-2P 853999-66-3P 853999-67-4P
853999-68-5P 853999-69-6P 853999-70-9P
853999-73-2P 853999-74-3P 853999-76-5P
853999-77-6P 853999-78-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(blood flow promoters for cauda equina tissues containing prostaglandin-like compds.)

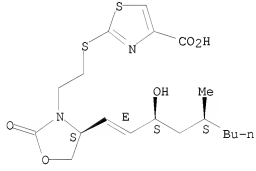
RN 853998-78-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E,3R)-3-hydroxy-4,4-dimethyl-1-octen-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



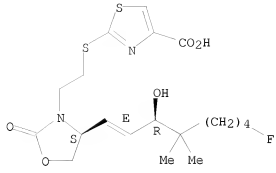
RN 853998-80-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E,3S,5S)-3-hydroxy-5-methyl-1-nonen-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



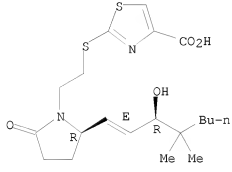
RN 853998-83-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E,3R)-8-fluoro-3-hydroxy-4,4-dimethyl-1-octen-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



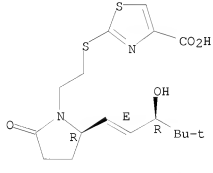
RN 853998-84-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3R)-3-hydroxy-4,4-dimethyl-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



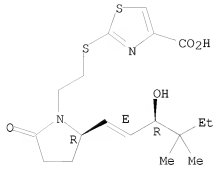
RN 853998-85-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3R)-3-hydroxy-4,4-dimethyl-1-penten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



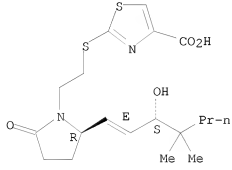
RN 853998-86-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3R)-3-hydroxy-4,4-dimethyl-1-hexen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



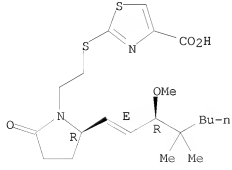
RN 853998-87-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4,4-dimethyl-1-hepten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 853998-88-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3R)-3-methoxy-4,4-dimethyl-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

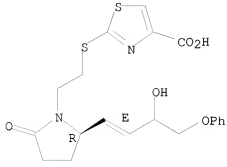
Absolute stereochemistry.
Double bond geometry as shown.



RN 853998-90-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E)-3-hydroxy-4-phenoxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

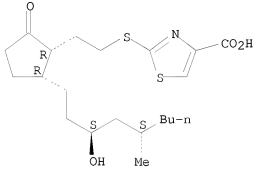
Absolute stereochemistry.

Double bond geometry as shown.



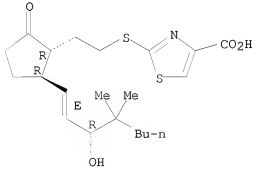
RN 853998-95-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(3S,5S)-3-hydroxy-5-methylnonyl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



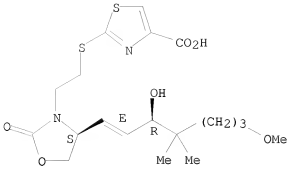
RN 853998-96-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,3R)-3-hydroxy-4,4-dimethyl-1-octen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



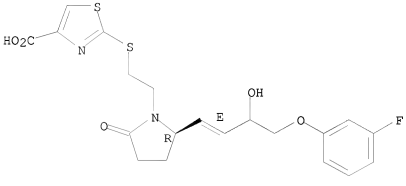
RN 853999-00-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E,3R)-3-hydroxy-7-methoxy-4,4-dimethyl-1-hepten-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



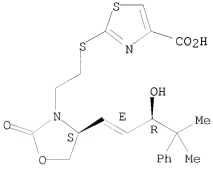
RN 853999-03-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E)-4-(3-fluorophenoxy)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



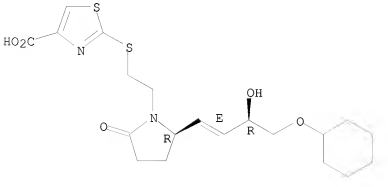
RN 853999-04-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E,3R)-3-hydroxy-4-methyl-4-phenyl-1-penten-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



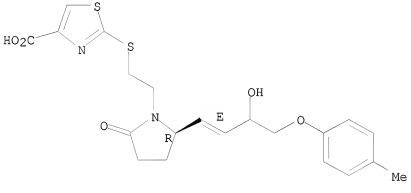
RN 853999-16-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3R)-4-(cyclohexyloxy)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



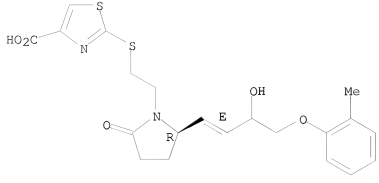
RN 853999-17-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E)-3-hydroxy-4-(4-methylphenoxy)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



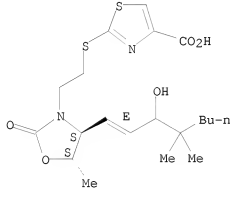
RN 853999-18-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E)-3-hydroxy-4-(2-methylphenoxy)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



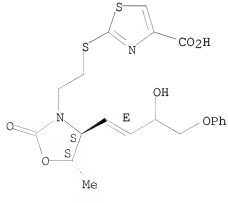
RN 853999-21-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-3-hydroxy-4,4-dimethyl-1-octen-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 853999-23-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-3-hydroxy-4-phenoxy-1-buten-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

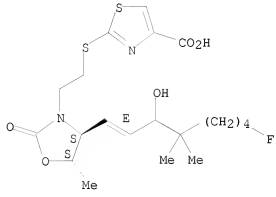
Absolute stereochemistry.
Double bond geometry as shown.



RN 853999-25-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-8-fluoro-3-hydroxy-4,4-

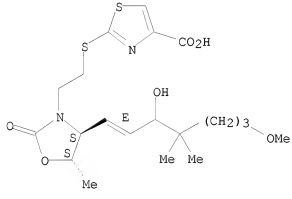
dimethyl-1-octen-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



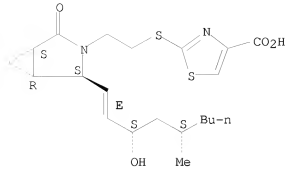
RN 853999-27-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-3-hydroxy-7-methoxy-4,4-dimethyl-1-hepten-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



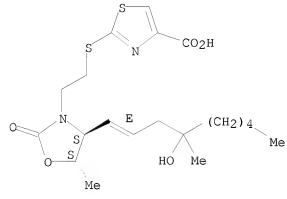
RN 853999-38-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2S,5S)-2-[(1E,3S,5S)-3-hydroxy-5-methyl-1-nonen-1-yl]-4-oxo-3-azabicyclo[3.1.0]hex-3-yl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



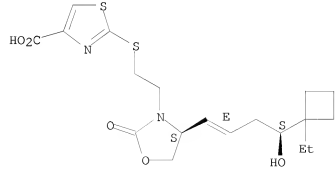
RN 853999-39-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



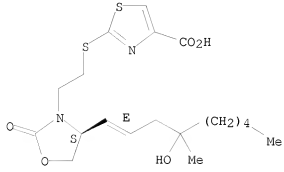
RN 853999-40-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E,4S)-4-(1-ethylcyclobutyl)-4-hydroxy-1-buten-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



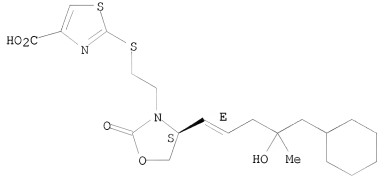
RN 853999-41-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E)-4-hydroxy-4-methyl-1-nonen-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



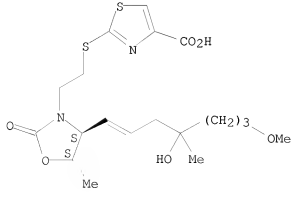
RN 853999-42-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E)-5-cyclohexyl-4-hydroxy-4-methyl-1-penten-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 853999-45-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-(4-hydroxy-7-methoxy-4-methyl-1-hepten-1-yl)-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

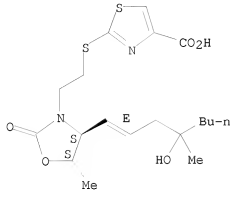
Absolute stereochemistry.
Double bond geometry unknown.



RN 853999-46-9 CAPLUS

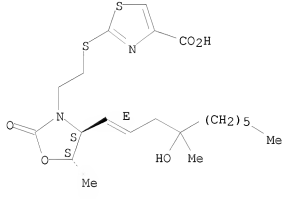
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-4-hydroxy-4-methyl-1-octen-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



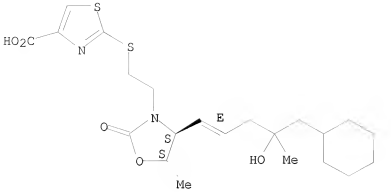
RN 853999-47-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-4-hydroxy-4-methyl-1-decen-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



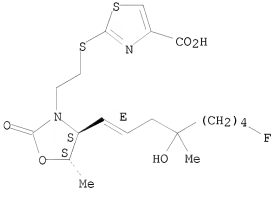
RN 853999-48-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-5-cyclohexyl-4-hydroxy-4-methyl-1-penten-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



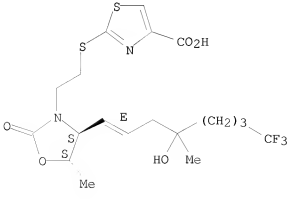
RN 853999-49-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-8-fluoro-4-hydroxy-4-methyl-1-octen-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



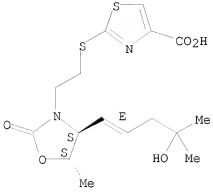
RN 853999-50-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-5-methyl-2-oxo-4-[(1E)-8,8,8-trifluoro-4-hydroxy-4-methyl-1-octen-1-yl]-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



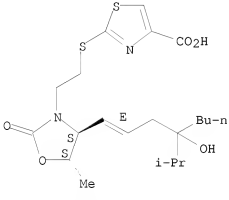
RN 853999-51-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-4-hydroxy-4-methyl-1-penten-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



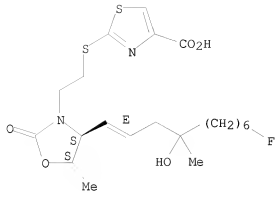
RN 853999-52-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-4-hydroxy-4-(1-methylethyl)-1-octen-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



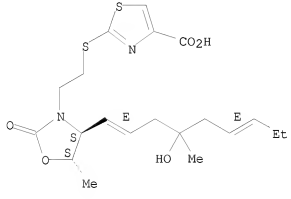
RN 853999-53-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-10-fluoro-4-hydroxy-4-methyl-1-decen-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



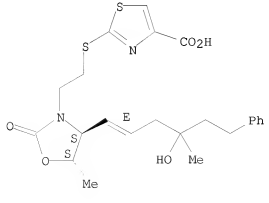
RN 853999-54-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E,6E)-4-hydroxy-4-methyl-1,6-nonadien-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



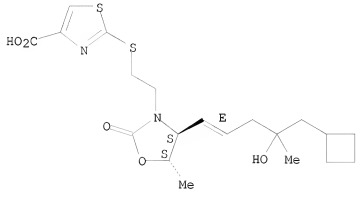
RN 853999-55-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-4-hydroxy-4-methyl-6-phenyl-1-hexen-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



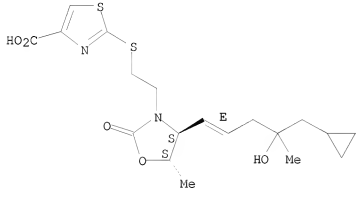
RN 853999-56-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-5-cyclobutyl-4-hydroxy-4-methyl-1-penten-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



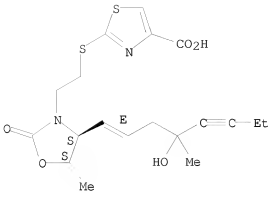
RN 853999-57-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-5-cyclopropyl-4-hydroxy-4-methyl-1-penten-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



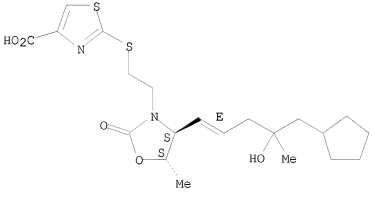
RN 853999-58-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-4-hydroxy-4-methyl-1-octen-5-yn-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



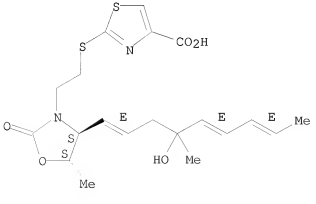
RN 853999-59-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-5-cyclopentyl-4-hydroxy-4-methyl-1-penten-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



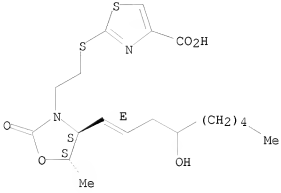
RN 853999-60-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E,5E,7E)-4-hydroxy-4-methyl-1,5,7-nonatrien-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



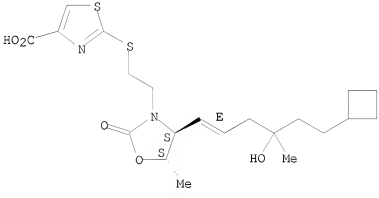
RN 853999-61-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-4-hydroxy-1-nonen-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



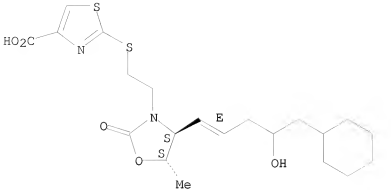
RN 853999-62-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-6-cyclobutyl-4-hydroxy-4-methyl-1-hexen-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



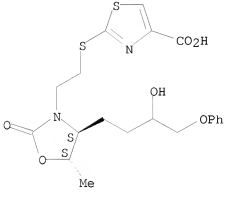
RN 853999-63-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-[(1E)-5-cyclohexyl-4-hydroxy-1-penten-1-yl]-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



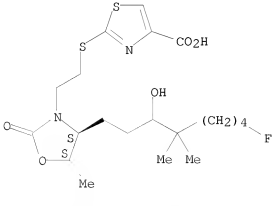
RN 853999-65-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-(3-hydroxy-4-phenoxybutyl)-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



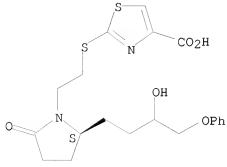
RN 853999-66-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S,5S)-4-(8-fluoro-3-hydroxy-4,4-dimethyloctyl)-5-methyl-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



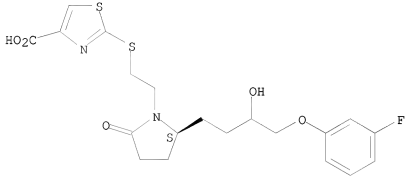
RN 853999-67-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2S)-2-(3-hydroxy-4-phenoxybutyl)-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



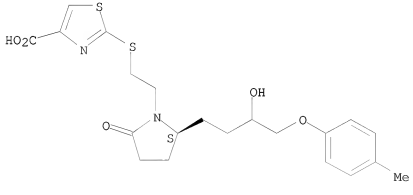
RN 853999-68-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2S)-2-[4-(3-fluorophenoxy)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



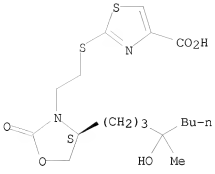
RN 853999-69-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2S)-2-[3-hydroxy-4-(4-methylphenoxy)butyl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



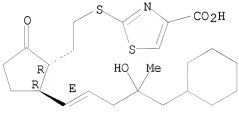
RN 853999-70-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-(4-hydroxy-4-methyloctyl)-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



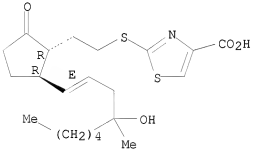
RN 853999-73-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-5-cyclohexyl-4-hydroxy-4-methyl-1-penten-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



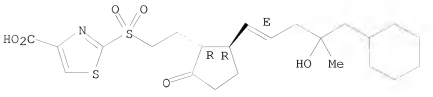
RN 853999-74-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



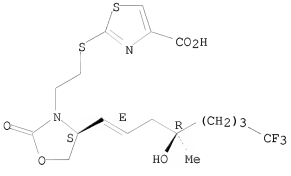
RN 853999-76-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-5-cyclohexyl-4-hydroxy-4-methyl-1-penten-1-yl]-5-oxocyclopentyl]ethyl]sulfonyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



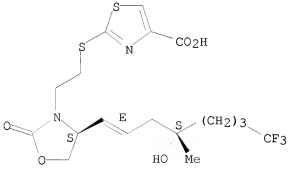
RN 853999-77-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-2-oxo-4-[(1E,4R)-8,8,8-trifluoro-4-hydroxy-4-methyl-1-octen-1-yl]-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 853999-78-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-2-oxo-4-[(1E,4S)-8,8,8-trifluoro-4-hydroxy-4-methyl-1-octen-1-yl]-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:259664 CAPLUS
DOCUMENT NUMBER: 142:317005
TITLE: Pharmaceutical compositions and methods comprising

combinations of 2-alkylidene-19-nor-vitamin d derivatives and an ep2 or ep4 selective agonist

INVENTOR(S): Lee, Andrew G.; Thompson, David D.

PATENT ASSIGNEE(S): Pfizer Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 49 pp.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050065133	A1	20050324	US 2004-944119	20040916
WO 2005027931	A1	20050331	WO 2004-IB2949	20040906

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-503798P P 20030919

OTHER SOURCE(S): CASREACT 142:317005

AB The present invention relates to pharmaceutical compns. and methods of treatment comprising administering to a patient in need thereof a combination of a 2-alkylidene-19-nor-vitamin D derivative and an EP2 or EP4 selective agonist or a pharmaceutically acceptable salt or prodrug thereof. Particularly, the present invention relates to pharmaceutical compns. and methods comprising administering to a patient in need thereof 2-methylene-19-nor-20(S)-1α,25-dihydroxyvitamin D3 and an EP2 or EP4 selective agonist or a pharmaceutically acceptable salt or prodrug thereof.

IT 431990-08-8P

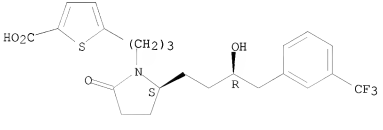
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(pharmaceutical compns. and methods comprising combinations of 2-alkylidene-19-nor-vitamin D derivs. and aromatase inhibitors)

RN 431990-08-8 CAPLUS

CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-3-hydroxy-4-[3-(trifluoromethyl)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.

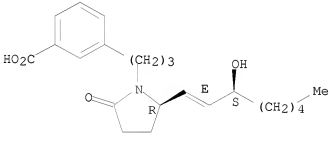


ACCESSION NUMBER: 2004:956785 CAPLUS
DOCUMENT NUMBER: 142:85862
TITLE: Lactams as EP4 Prostanoid Receptor Agonists. 3. Discovery of N-Ethylbenzoic Acid 2-Pyrrolidinones as Subtype Selective Agents
AUTHOR(S): Elworthy, Todd R.; Brill, Emma R.; Chiou, San-San; Chu, Frances; Harris, Jason R.; Hendricks, R. Than; Huang, Jane; Kim, Woongki; Lach, Leang K.; Mirzadegan, Tara; Yee, Calvin; Walker, Keith A. M.
CORPORATE SOURCE: Roche Palo Alto, Palo Alto, CA, 94304, USA
SOURCE: Journal of Medicinal Chemistry (2004), 47(25), 6124-6127
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 142:85862

AB Two distinct synthetic schemes were applied to access heteroatom-containing α-chain lactams or lactams terminated as aryl acids. The latter lactams were devised using a pharmacophore for EP4 receptor activity. γ-Lactams were characterized for their prostanoid EP receptor affinities and EP4 activity and found to be selective for the EP2 and EP4 receptors or selective for the EP4 subtype. Benzoic acid 17 displayed enhanced in vivo exposure relative to 3.

IT 819067-16-8P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(discovery of N-ethylbenzoic acid 2-pyrrolidinones as EP4 prostanoid receptor agonists)
RN 819067-16-8 CAPLUS
CN Benzoic acid, 3-[3-[(2R)-2-[(1E,3S)-3-hydroxy-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:754406 CAPLUS
DOCUMENT NUMBER: 141:277481
TITLE: A preparation of γ-lactam derivatives, useful as prostaglandin agonists
INVENTOR(S): Araldi, Gian Luca; Karra, Srinivasa; Zhao, Zhong; Brugger, Nadia
PATENT ASSIGNEE(S): Applied Research Systems Ars Holding N.V., Neth. Antilles

SOURCE: PCT Int. Appl., 123 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004078103	A2	20040916	WO 2004-EP50239	20040302
WO 2004078103	A3	20041028		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004216857	A1	20040916	AU 2004-216857	20040302
CA 2513652	A1	20040916	CA 2004-2513652	20040302
EP 1603874	A2	20051214	EP 2004-737283	20040302
EP 1603874	B1	20080507		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
JP 2006519245	T	20060824	JP 2006-505441	20040302
AT 394372	T	20080515	AT 2004-737283	20040302
ES 2305779	T3	20081101	ES 2004-737283	20040302
US 20060194865	A1	20060831	US 2005-547676	20050902
US 7276531	B2	20071002		
NO 2005004441	A	20050926	NO 2005-4441	20050926
PRIORITY APPLN. INFO.:			US 2003-451829P P	20030303
			WO 2004-EP50239 W	20040302

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 141:277481
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to a preparation of γ-lactam derivs. of formula I [wherein: A is (cyclo)alkyl, (hetero)aryl, or heterocycloalkyl; B is CO2H, CO2-alkyl, NH2, piperidinyl, etc.; D is H, halogen, or alkyl; E is H or alkyl; G is H, alk(en/yn)yl, (hetero)cycloalkyl, or (hetero)aryl, etc.; J, K, and L are independently selected from H, halogen, alkyl, or (hetero)aryl, etc.; M is OH or H; X is (CH2)0-1; (a) and (b) double bonds can be independently in Z or E configuration], useful as prostaglandin agonists. γ-Lactam derivs. are useful in the treatment and/or prevention of asthma, hypertension, osteoporosis, sexual dysfunction and fertility disorders. For instance, γ-lactam derivs. II (X is E and Z configuration; h-EP2, EC50 = 0.197 μM; h-EP4, EC50 = 0.02 μM) were prepared from (E)-2-heptenyltriphenylphosphonium bromide and pyrrolidinone derivative III (examples 1 and 2).

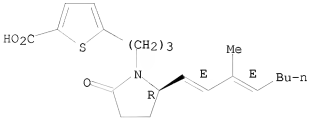
IT 757965-74-5P 757965-75-6P 757966-99-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of γ-lactam derivs., useful as prostaglandin agonists)

RN 757965-74-5 CAPLUS

CN 2-Thiophenecarboxylic acid, 5-[3-[(2R)-2-[(1E,3E)-3-methyl-1,3-octadien-1-

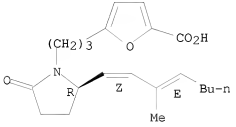
yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



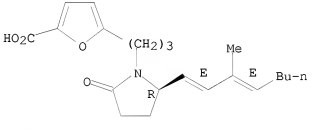
RN 757965-75-6 CAPLUS
CN 2-Furancarboxylic acid, 5-[3-[(2R)-2-[(1Z,3E)-3-methyl-1,3-octadien-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 757966-99-7 CAPLUS
CN 2-Furancarboxylic acid, 5-[3-[(2R)-2-[(1E,3E)-3-methyl-1,3-octadien-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

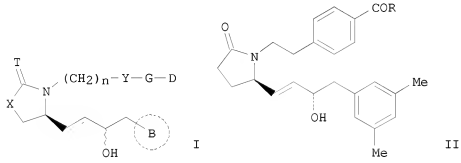
L4 ANSWER 17 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:633912 CAPLUS
DOCUMENT NUMBER: 141:156958
TITLE: Preparation of 8-azaprostaglandin derivatives as prostaglandin EP4 receptor agonists
INVENTOR(S): Kambe, Tohru; Maruyama, Toru; Kobayashi, Kaoru; Tani, Kousuke; Nakai, Yoshihiko; Nagase, Toshihiko; Maruyama, Takayuki; Sakata, Kiyoto; Yoshida, Hideyuki; Fujimura, Shinsei; Nishiura, Akio; Abe, Nobutaka

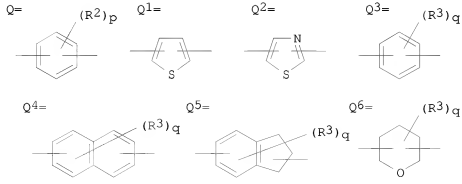
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 153 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004065365	A1	20040805	WO 2004-JP419	20040120
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
JP 2005104836	A	20050421	JP 2003-289954	20030808
EP 1586564	A1	20051019	EP 2004-703518	20040120
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 7256211	B1	20070814	US 2005-542724	20050720
US 20080033033	A1	20080207	US 2007-749531	20070516

PRIORITY APPLN. INFO.:
JP 2003-11936 A 20030121
JP 2003-289954 A 20030808
WO 2004-JP419 W 20040120
US 2005-542724 A3 20050720

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 141:156958
GI





AB Compds. having an 8-azaprostaglandin skeleton represented by the following general formula (I), salts thereof, solvates thereof, clathrate compds.

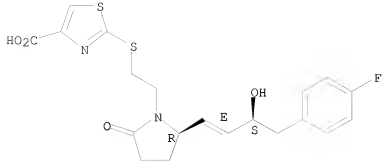
thereof in cyclodextrin, or prodrugs thereof [wherein a solid line accompanied by a dotted line represents a single or double bond; a wavy line for the OH group represents an α- or β-disposition or a mixture with any α/β ratio thereof; D = C1-4 alkoxy-carbonyl, tetrazolyl; the ring A = Q, Q1, Q2; R2 = halo, C1-4 alkyl, C1-4 alkoxy; p = an integer of 0-4; Y = a bond, S; T = O, S; X = CH2, O, S; ring B = Q3, Q4, Q5, Q6; R3 = halo, each mono- to pentahalo-C1-4 alkyl or -C1-4 alkoxy, C1-4 alkoxy-C1-4 alkyl, Ph, each (un)substituted Ph or 3- to-13-membered bi- or tricyclic heterocyclyl containing 1-4 heteroatoms selected from N and S; q = an integer of 0-5] are prepared These compds. are prostaglandin EP4 receptor agonists and thereby useful in preventing and/or treating EP4-mediated diseases such as immune diseases, asthma, nerve cell death, arthritis, pulmonary injury, pulmonary fibrosis, pulmonary emphysema, bronchitis, chronic obstructive pulmonary disease, liver injury, acute hepatitis, nephritis, renal failure, hypertension, myocardial ischemia, systemic inflammatory reaction syndrome, sepsis, hemophagous syndrome, macrophage activation syndrome, Still's disease, Kawasaki's disease, burn, systemic granuloma, ulcerative colitis, Crohn's disease, hypercytokinemia in dialysis, multiorgan failure, shock and glaucoma. Because of having an effect of promoting osteogenesis, moreover, they are useful in preventing and/or treating diseases with bone loss (bone diseases such as primary osteoporosis, secondary osteoporosis, bone metastasis of cancer, hypercalcemia, Behcet's disease, bone defect and bone necrosis, postoperative osteogenesis, alternative therapy for bone transplantation). Thus, (4R,5E,7S)-4-amino-7-hydroxy-8-(3,5-dimethylphenyl)oct-5-enoic acid Et ester hydrochloride (preparation given) underwent reductive alkylation and cyclization with Me 4-formylmethylbenzoate using sodium triacetoxyborohydride in THF at room temperature overnight to give 2,3,4,5,17,18,19,20-octanor-8-azaprost-13-enoic acid Me ester derivative (II; R = OMe) which was saponified by a mixture of 2 N aqueous NaOH solution and acidified with 2 N aqueous HCl solution to give II (R = OH). II (R = OH) showed the binding activity to prostaglandin EP4 receptor expressed by CHO cells with Ki of 6.4 nM. A tablet and vial formulation containing a specific compound I were described.

IT 494222-47-8P 729611-04-5P 729611-06-7P
729611-09-0P 729611-12-5P 729611-13-6P
729611-15-8P 729611-16-9P 729611-19-2P
729611-50-1P 729611-51-2P 729611-52-3P
729611-53-4P 729611-54-5P 729611-55-6P
729611-56-7P 729611-57-8P 729611-58-9P
729611-59-0P 729611-60-3P 729611-61-4P
729611-62-5P 729611-63-6P 729611-64-7P
729611-65-8P 729611-66-9P 729611-67-0P
729611-68-1P 729611-69-2P 729611-70-5P
729611-71-6P 729611-72-7P 729611-73-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 8-azaprostaglandin derivs. as prostaglandin EP4 receptor agonists or osteogenesis promoters for preventing and/or treating EP4-mediated diseases or bone diseases)

RN 494222-47-8 CAPLUS

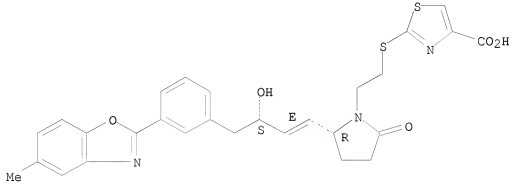
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-(4-fluorophenyl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



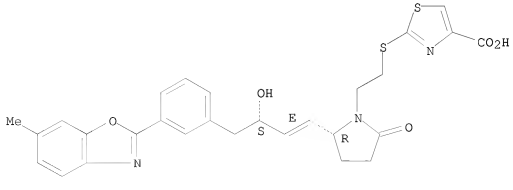
RN 729611-04-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-[3-(5-methyl-2-benzoxazolyl)phenyl]-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 729611-06-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-[3-(6-methyl-2-benzoxazolyl)phenyl]-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

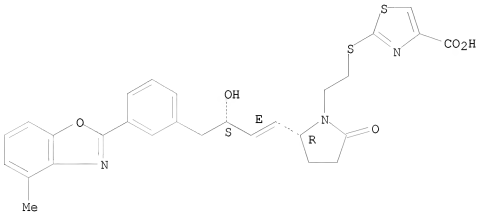
Absolute stereochemistry.
Double bond geometry as shown.



RN 729611-09-0 CAPLUS

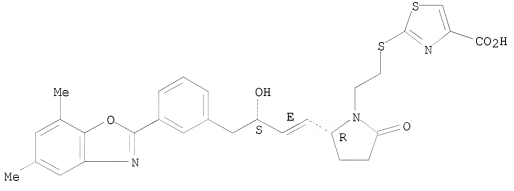
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-[3-(4-methyl-2-benzoxazolyl)phenyl]-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



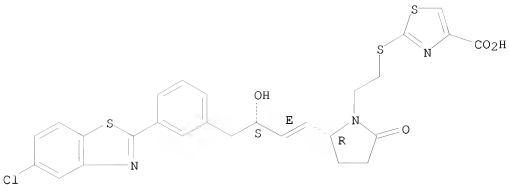
RN 729611-12-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-[3-(5,7-dimethyl-2-benzoxazolyl)phenyl]-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



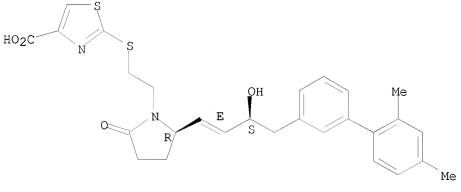
RN 729611-13-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-[3-(5-chloro-2-benzothiazolyl)phenyl]-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



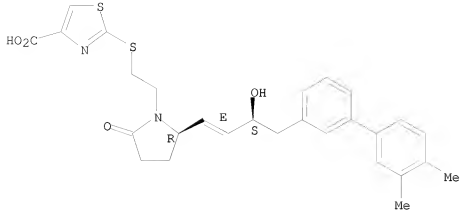
RN 729611-15-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-(2',4'-dimethyl[1,1'-biphenyl]-3-yl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]-(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



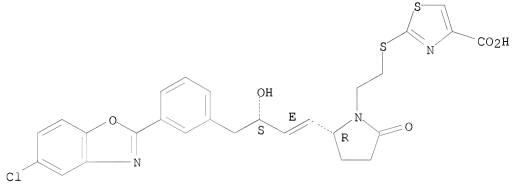
RN 729611-16-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-(3',4'-dimethyl[1,1'-biphenyl]-3-yl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]-(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



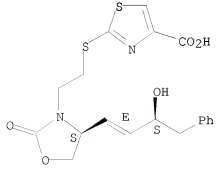
RN 729611-19-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-[3-(5-chloro-2-benzoxazolyl)phenyl]-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



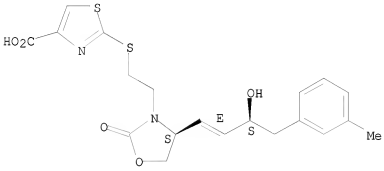
RN 729611-50-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E,3S)-3-hydroxy-4-phenyl-1-buten-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



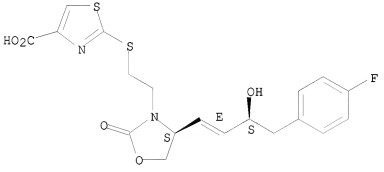
RN 729611-51-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E,3S)-3-hydroxy-4-(3-methylphenyl)-1-buten-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



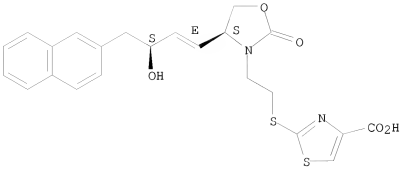
RN 729611-52-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E,3S)-4-(4-fluorophenyl)-3-hydroxy-1-buten-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



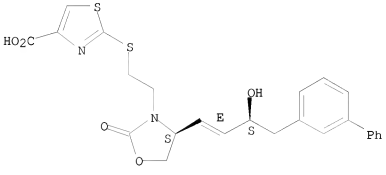
RN 729611-53-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E,3S)-3-hydroxy-4-(2-naphthalenyl)-1-buten-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



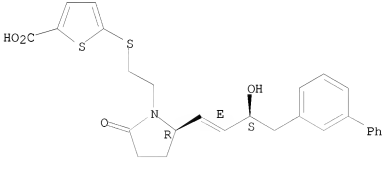
RN 729611-54-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(4S)-4-[(1E,3S)-4-[1,1'-biphenyl]-3-yl-3-hydroxy-1-buten-1-yl]-2-oxo-3-oxazolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 729611-55-6 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[[2-[(2R)-2-[(1E,3S)-4-[1,1'-biphenyl]-3-yl-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

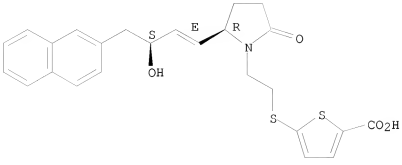
Absolute stereochemistry.
Double bond geometry as shown.



RN 729611-56-7 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-(2-naphthalenyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

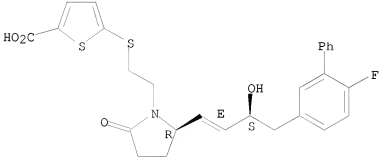
Absolute stereochemistry.

Double bond geometry as shown.



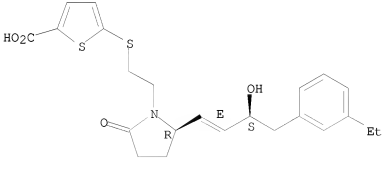
RN 729611-57-8 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[[2-[(2R)-2-[(1E,3S)-4-(6-fluoro[1,1'-biphenyl]-3-yl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 729611-58-9 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[[2-[(2R)-2-[(1E,3S)-4-(3-ethylphenyl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

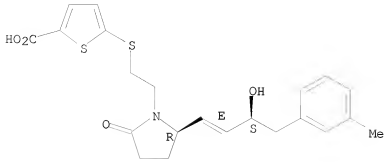
Absolute stereochemistry.
Double bond geometry as shown.



RN 729611-59-0 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-(3-methylphenyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

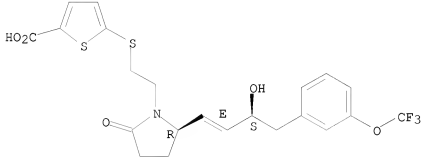
Absolute stereochemistry.

Double bond geometry as shown.



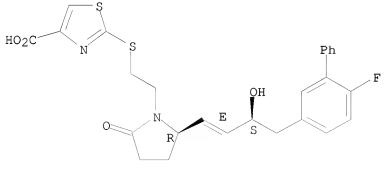
RN 729611-60-3 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-[3-(trifluoromethoxy)phenyl]-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



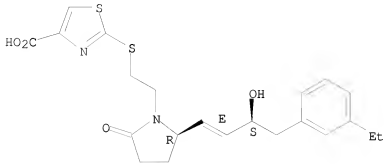
RN 729611-61-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-(6-fluoro[1,1'-biphenyl]-3-yl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



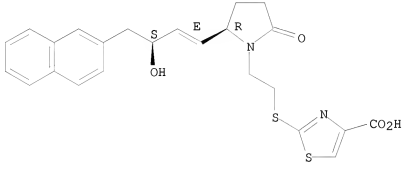
RN 729611-62-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-(3-ethylphenyl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



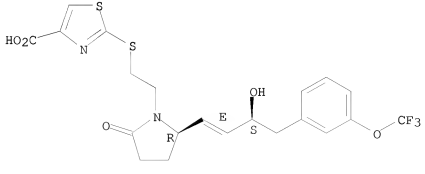
RN 729611-63-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-(2-naphthalenyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 729611-64-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-[3-(trifluoromethoxy)phenyl]-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

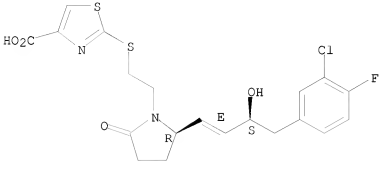
Absolute stereochemistry.
Double bond geometry as shown.



RN 729611-65-8 CAPLUS

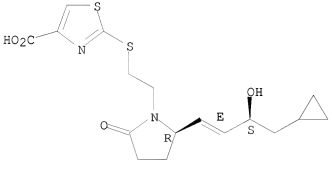
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-(3-chloro-4-fluorophenyl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



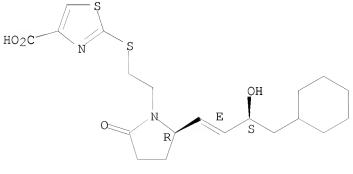
RN 729611-66-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-cyclopropyl-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



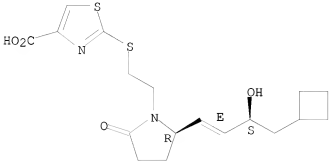
RN 729611-67-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-cyclohexyl-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



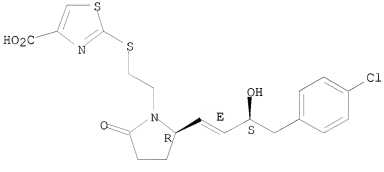
RN 729611-68-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-cyclobutyl-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



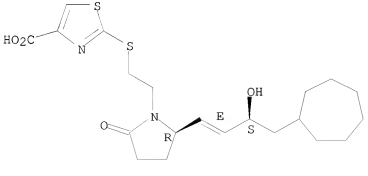
RN 729611-69-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-(4-chlorophenyl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



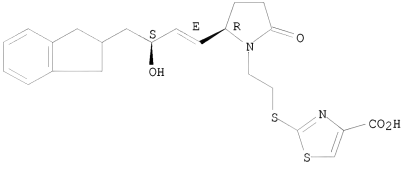
RN 729611-70-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-cycloheptyl-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



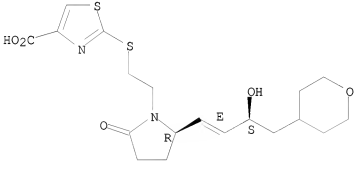
RN 729611-71-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-(2,3-dihydro-1H-inden-2-yl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



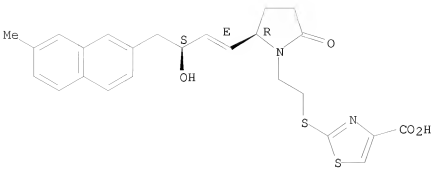
RN 729611-72-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-(tetrahydro-2H-pyran-4-yl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 729611-73-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-(7-methyl-2-naphthalenyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:370901 CAPLUS
DOCUMENT NUMBER: 140:391154
TITLE: A preparation of pyrrolidinone derivatives useful as selective EP4 receptor agonists
INVENTOR(S): Billot, Xavier; Beunard, Jean-Luc; Han, Yongxin; Young, Robert N.; Colucci, John; Girard, Mario; Wilson, Marie-Claire
PATENT ASSIGNEE(S): Merck Frosst Canada & Co., Can.
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004037786	A2	20040506	WO 2003-CA1620	20031023
WO 2004037786	A3	20040930		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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AU 2003275840	A1	20040513	AU 2003-275840	20031023
EP 1558602	A2	20050803	EP 2003-809227	20031023
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006505572	T	20060216	JP 2004-545645	20031023
US 20060167081	A1	20060727	US 2005-528419	20050317

PRIORITY APPLN. INFO.: US 2002-421402P P 20021025
WO 2003-CA1620 W 20031023

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 140:391154
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

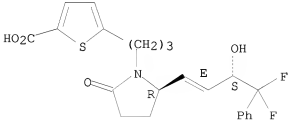
AB The invention relates to pyrrolidinone derivs. of formula I [wherein: Y1 = (CH2)2, CH:CH, 1,2-cyclopropanediyl; Y is C(O) or CH(OH); A is (CH2)1-4; Z = O, S, 1,2-cyclopropanediyl, HC:CH, C.tplbond.C, or a bond; Q is a disubstituted (hetero)aryl ring; W is a bond, unsubstituted C1-6 alkylene, or C1-6 alkylene substituted with 1-4 halogen atoms; R1 = OH, CN, CHO, etc.; R2 = C1-6alkyl, (CH2)0-8-(C6-10aryl), O-C1-10alkyl, etc.; R3 and R4 are independently selected from halogen, C1-6alkyl, or R3 and R4, together with the carbon atom to which they are attached, form a C3-7 cycloalkyl ring] useful as potent selective agonists of the EP4 subtype of prostaglandin E2 receptors. The invention compds. are useful in treatment of glaucoma and other conditions which are related to the elevated intraocular pressure in the eye. The invention relates to the use of the invention compds. for mediating the bone modeling and remodeling processes of the osteoblasts and osteoclasts. The invention compds. were tested as EP4 agonists on intraocular pressure in rabbits and monkeys; prostanoid receptor binding assays and bone resorption assays were performed (in a subclass of the invented compds., agonists have EC50 values from 0.01 μM to 10 μM). The synthesized stereoisomeric pyrrolidinones II were prepared from pyrrole derivative III via oxidation, condensation with PhCF2C(O)CH2P(O)(OMe)2, keto-group reduction of the obtained unsatd. ketone IV, alc. protection, N-cleavage, addition of thiophene derivative V to the obtained compound VI, separation of the isomers, alc. deprotection, and hydrolysis.

IT 685896-00-8P 685896-02-0P 685896-04-2P
685896-06-4P 685896-07-5P 685896-09-7P
685896-12-2P 685896-15-5P 685896-16-6P
685896-17-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyrrolidinone derivs. useful as selective EP4 receptor agonists)

RN 685896-00-8 CAPLUS

CN 2-Thiophenecarboxylic acid, 5-[3-[(2R)-2-[(1E,3S)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

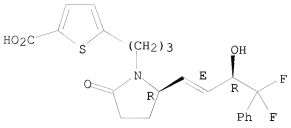
Absolute stereochemistry.
Double bond geometry as shown.



RN 685896-02-0 CAPLUS

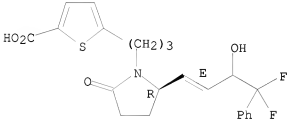
CN 2-Thiophenecarboxylic acid, 5-[3-[(2R)-2-[(1E,3R)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



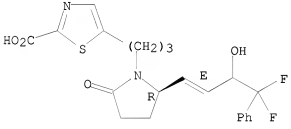
RN 685896-04-2 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2R)-2-[(1E)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



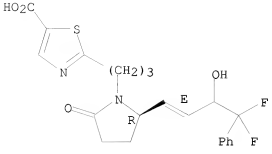
RN 685896-06-4 CAPLUS
CN 2-Thiazolecarboxylic acid, 5-[3-[(2R)-2-[(1E)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



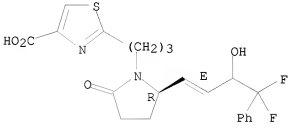
RN 685896-07-5 CAPLUS
CN 5-Thiazolecarboxylic acid, 2-[3-[(2R)-2-[(1E)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



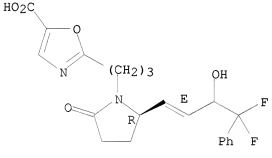
RN 685896-09-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[3-[(2R)-2-[(1E)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



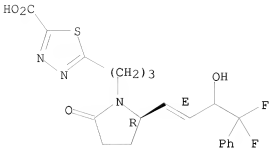
RN 685896-12-2 CAPLUS
CN 5-Oxazolecarboxylic acid, 2-[3-[(2R)-2-[(1E)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



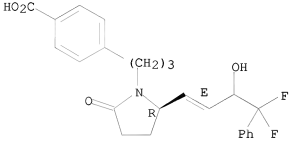
RN 685896-15-5 CAPLUS
CN 1,3,4-Thiadiazole-2-carboxylic acid, 5-[3-[(2R)-2-[(1E)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



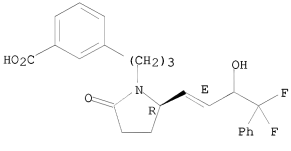
RN 685896-16-6 CAPLUS
CN Benzoic acid, 4-[3-[(2R)-2-[(1E)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 685896-17-7 CAPLUS
CN Benzoic acid, 3-[3-[(2R)-2-[(1E)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



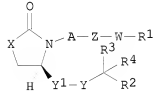
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:203664 CAPLUS
DOCUMENT NUMBER: 140:253553
TITLE: Preparation of oxazolidin-2-one and thiazolidin-2-one derivatives for use as prostaglandin E2 receptor EP4-subtype agonists

INVENTOR(S): Han, Yongxin; Colucci, John; Billot, Xavier; Wilson, Marie-Claire; Young, Robert
PATENT ASSIGNEE(S): Merck Frosst Canada & Co., Can.
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004019938	A1	20040311	WO 2003-CA1306	20030825
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2495917	A1	20040311	CA 2003-2495917	20030825
AU 2003258433	A1	20040319	AU 2003-258433	20030825
EP 1545517	A1	20050629	EP 2003-790594	20030825
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006504679	T	20060209	JP 2004-531332	20030825
US 20060154899	A1	20060713	US 2005-521508	20050118
US 7109223	B2	20060919		
US 20060270721	A1	20061130	US 2006-498124	20060802

PRIORITY APPLN. INFO.: US 2002-406530P P 20020828
WO 2003-CA1306 W 20030825
US 2005-521508 A3 20050118
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 140:253553
GI



I

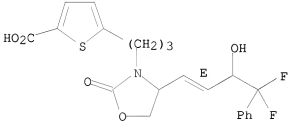
AB This invention relates to compds. of formula (I) [X = O, S; Y1 = CH2CH2, CH:CH, cyclopropane-1,2-diyl; Y = CO, CH(OH); A, W = a bond, C1-6 alkylene optionally substituted with 1, 2, 3, or 4 halogen atoms; Z = O, S, cyclopropane-1,2-diyl, CH2, HC:H, C.tplbond.C, each disubstituted aryl or heteroaryl ring; R2 = C1-6 alkyl, provided that R2 is not n-pentyl, (CH2)0-8-C6-10 aryl, (CH2)0-8-C5-10 heteroaryl, (CH2)0-8-C3-10 heterocycloalkyl, (CH2)0-8-C3-8cycloalkyl, O-C1-10-oalkyl, O-C6-10aryl, O-C5-10heteroaryl, O-C5-10heterocycloalkyl, O-C3-10cycloalkyl wherein aryl, heteroaryl, heterocycloalkyl, and cycloalkyl are optionally substituted; R3, R4 = H, halogen, C1-6 alkyl; or R3 and R4, together with the carbon atom to which they are attached, form a C3-7 cycloalkyl ring; R5 = H, OH, CH2OH, C1-6 alkoxy, NHPO2R6, NHR9, NHSO2R8, NR6R7; R6, R7 = H,

C1-6 alkyl; R8 = H, C6-10 aryl, C1-4 alkyl; R9 = acyl, sulfonyl] are prepared These compds. are potent selective agonists of the EP4 subtype of prostaglandin E2 receptors. Also disclosed are their use for a medicament in the treatment of conditions which are related to elevated intraocular pressure in the eye of a patient by (1) treating ocular hypertension, glaucoma, macular edema, or macular degeneration, (2) increasing retinal and optic nerve head blood velocity, (3) increasing retinal and optic nerve tension, (4) providing a neuroprotective effect, or (5) treating dry eyes.

IT 670219-78-0P, 5-[3-[4-((1E)-4,4-Difluoro-3-hydroxy-4-phenylbut-1-enyl)-2-oxo-1,3-oxazolidin-3-yl]propyl]thiophene-2-carboxylic acid 670219-79-1P, 5-[3-[4-((1E)-4,4-Difluoro-3-hydroxy-4-phenylbut-1-enyl)-2-oxo-1,3-oxazolidin-3-yl]propyl]-2-furoic acid 670219-86-0P, 3-[3-[4-((1E)-4,4-Difluoro-3-hydroxy-4-phenylbut-1-enyl)-2-oxo-1,3-oxazolidin-3-yl]propyl]benzoic acid 670219-87-1P, 4-[3-[4-((1E)-4,4-Difluoro-3-hydroxy-4-phenylbut-1-enyl)-2-oxo-1,3-oxazolidin-3-yl]propyl]benzoic acid 670219-88-2P, 2-[3-[4-((1E)-4,4-Difluoro-3-hydroxy-4-phenylbut-1-enyl)-2-oxo-1,3-oxazolidin-3-yl]propyl]benzoic acid
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of oxazolidinone and thiazolidinone derivs. as prostaglandin E2 receptor EP4-subtype agonists in treatment of conditions related to elevated intraocular pressure in eye)

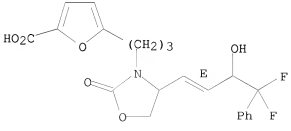
RN 670219-78-0 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[4-[(1E)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-2-oxo-3-oxazolidinyl]propyl]- (CA INDEX NAME)

Double bond geometry as shown.



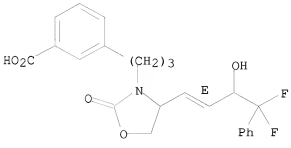
RN 670219-79-1 CAPLUS
CN 2-Furancarboxylic acid, 5-[3-[4-[(1E)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-2-oxo-3-oxazolidinyl]propyl]- (CA INDEX NAME)

Double bond geometry as shown.



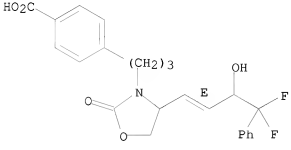
RN 670219-86-0 CAPLUS
CN Benzoic acid, 3-[3-[4-[(1E)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-2-oxo-3-oxazolidinyl]propyl]- (CA INDEX NAME)

Double bond geometry as shown.



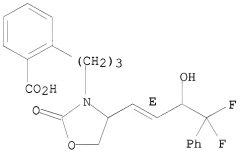
RN 670219-87-1 CAPLUS
CN Benzoic acid, 4-[3-[4-[(1E)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-2-oxo-3-oxazolidinyl]propyl]- (CA INDEX NAME)

Double bond geometry as shown.



RN 670219-88-2 CAPLUS
CN Benzoic acid, 2-[3-[4-[(1E)-4,4-difluoro-3-hydroxy-4-phenyl-1-buten-1-yl]-2-oxo-3-oxazolidinyl]propyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:757519 CAPLUS
DOCUMENT NUMBER: 139:276812
TITLE: Preparation of hydroxyorgano pyrrolidinones as EP4 receptor selective agonists for the treatment of

hypertension and other disorders

INVENTOR(S): Cameron, Kimberly O'Keefe; Lefker, Bruce Allen; Knight, Delvin Roscoe, Jr.

PATENT ASSIGNEE(S): Pfizer Products Inc., USA

SOURCE: PCT Int. Appl., 124 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003077910	A1	20030925	WO 2003-IB844	20030306
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2478653	A1	20030925	CA 2003-2478653	20030306
AU 2003207900	A1	20030929	AU 2003-207900	20030306
EP 1487437	A1	20041222	EP 2003-704902	20030306
EP 1487437	B1	20060816		
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BR 2003008738	A	20050111	BR 2003-8738	20030306
JP 2005531516	T	20051020	JP 2003-575963	20030306
AT 336247	T	20060915	AT 2003-704902	20030306
ES 2268327	T3	20070316	ES 2003-704902	20030306
US 20030207925	A1	20031106	US 2003-386307	20030311
US 7414071	B2	20080819		
MX 2004005555	A	20050516	MX 2004-5555	20040608
PRIORITY APPLN. INFO.:			US 2002-365711P P	20020318
			WO 2003-IB844 W	20030306

OTHER SOURCE(S): MARPAT 139:276812

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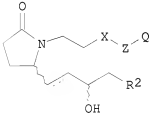


I

AB This invention is directed to hydroxyorgano pyrrolidinones (I; e.g. 4-[3-[2-(3-hydroxy-4-phenylbutyl)-5-oxopyrrolidin-1-yl]propyl]benzoic acid; R2, X, Z and Q are defined below and in more detail in the claims) that are EP4 receptor selective prostaglandin agonists. This invention is also directed to pharmaceutical compns. containing those compds. This invention is also directed to methods of treating hypertension, liver failure, loss of patency of the ductus arteriosus, glaucoma or ocular hypertension. IC50 values for binding of

5-[3-[2S-[3R-hydroxy-4-(3-trifluoromethylphenyl)butyl]-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid (II) to various receptors are human EP1 receptor, >1000 nm; rat EP2 receptor, 463 nm; human EP3 receptor, > 1000 nm; and rat EP4 receptor, 11 nm. II exhibited an EC50 value of 0.6 nm in an assay involving cAMP elevation in 293S cell lines stably overexpressing recombinant rat EP4 receptors. Results are also presented for the hypotensive effect of the Na salt of II in in vivo rabbit and primate models. In I, a prodrug thereof, a pharmaceutically acceptable salt of said compound or said prodrug or a stereoisomer or diastereomeric mixture of said compound, prodrug or salt: the dotted line is a bond or no bond; X is -CH2- or O; Z is -(CH2)3-, thienyl, thiazolyl or Ph, provided that when X is O, then Z is phenyl; Q is carboxy, (C1-C4)alkoxycarbonyl or tetrazolyl; R2 is -Ar or -Ar1-V-Ar2; V is a bond, -O-, -OCH2- or -CH2O-. Ar is a partially saturated, fully saturated or fully unsatd. 5-8 membered ring optionally having 1-4 heteroatoms selected independently from O, S and N, or a bicyclic ring consisting of two fused independently partially saturated, fully saturated or fully unsatd. 5-6 membered rings, taken independently, optionally having 1-4 heteroatoms selected independently from N, S and O, said partially or fully saturated ring or bicyclic ring optionally having 1-2 oxo groups substituted on C or 1-2 oxo groups substituted on S. Ar1 and Ar2 are each independently a partially saturated, fully saturated or fully unsatd.

5-8 membered ring optionally having 1-4 heteroatoms selected independently from O, S and N, said partially or fully saturated ring optionally having 1-2 oxo groups substituted on C or 1-2 oxo groups substituted on S. Ar is optionally substituted on C or N, on one ring if the moiety is monocyclic, or on one or both rings if the moiety is bicyclic, with up to three substituents per ring each independently selected from hydroxy, halo, carboxy, (C1-C7) alkoxy, (C1-C4)alkoxy(C1-C4)alkyl, (C1-C7)alkyl, (C2-C7)alkenyl, (C3-C7)cycloalkyl, (C3-C7)cycloalkyl(C1-C4)alkyl, (C3-C7)cycloalkyl(C1-C4)alkanoyl, formyl, (C1-C8) alkanoyl, (C1-C6)alkanoyl(C1-C6)alkyl, (C1-C4)alkanoylamino, (C1-C4)alkoxycarbonylamino, hydroxysulfonyl, aminocarbonylamino or mono-N-, di-N,N-, di-N,N'- or tri-N,N,N'-(C1-C4)alkyl substituted aminocarbonylamino, sulfonamido, (C1-C4)alkylsulfonamido, amino, mono-N- or di-N,N-(C1-C4)alkylamino, carbamoyl, mono-N- or di-N,N-(C1-C4)alkylcarbamoyl, cyano, thiol, (C1-C6)alkylthio, (C1-C6)alkylsulfinyl, (C1-C4)alkylsulfonyl and mono-N- or di-N,N-(C1-C4)alkylaminosulfinyl, wherein said alkyl and alkoxy substituents in the definition of Ar are optionally substituted on C with up to three fluoro. Ar1 and Ar2 are independently optionally substituted on C or N with up to three substituents each independently selected from hydroxy, halo, carboxy, (C1-C7)alkoxy, (C1-C4)alkoxy(C1-C4)alkyl, (C1-C7)alkyl, (C2-C7)alkenyl, (C3-C7)cycloalkyl, (C3-C7)cycloalkyl(C1-C4)alkyl, (C3-C7)cycloalkyl(C1-C4)alkanoyl, formyl, (C1-C8)alkanoyl, (C1-C6)alkanoyl(C1-C6)alkyl, (C1-C4)alkanoylamino, (C1-C4)alkoxycarbonylamino, hydroxysulfonyl, aminocarbonylamino or mono-N-, di-N,N-, di-N,N'- or tri-N,N,N'-(C1-C4)alkyl substituted aminocarbonylamino, sulfonamido, (C1-C4)alkylsulfonamido, amino, mono-N- or di-N,N-(C1-C4)alkylamino, carbamoyl, mono-N- or di-N,N-(C1-C4)alkylcarbamoyl, cyano, thiol, (C1-C6)alkylthio, (C1-C6)alkylsulfinyl, (C1-C4)alkylsulfonyl and mono-N- or di-N,N-(C1-C4)alkylaminosulfinyl, wherein said alkyl and alkoxy substituents in the definition of Ar1 and Ar2 are optionally substituted on C with up to three fluoro. (a) when X is (CH2)- and Z is -(CH2)3-, then R2 is not thienyl, Ph or Ph monosubstituted with chloro, fluoro, Ph, methoxy, trifluoromethyl or (C1-C4) alkyl; and (b) when X is (CH2)-, Z is -(CH2)3-, and Q is carboxy or (C1-C4) alkoxycarbonyl, then R2 is not (i) (C5-C7)cycloalkyl or (ii)phenyl, thienyl or furyl each of which may be optionally monosubstituted or disubstituted by one or two substituents selected, independently in the latter case, from halogen atoms, alkyl groups having 1-3 C atoms which may be substituted by one or more halogen

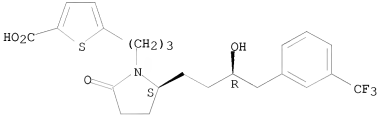
atoms, and alkoxy groups having 1-4 C atoms. Although the methods of preparation are not claimed, 41 example prepns. are included.

IT 605686-01-9P, 5-[3-[2S-[3R-Hydroxy-4-(3-trifluoromethylphenyl)butyl]-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid sodium salt
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of hydroxyorgano pyrrolidinones as EP4 receptor selective agonists for treatment of hypertension and other disorders)

RN 605686-01-9 CAPLUS

CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-3-hydroxy-4-[3-(trifluoromethyl)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]-, sodium salt (1:1) (CA INDEX NAME)

Absolute stereochemistry.

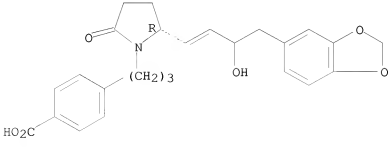


IT 431989-31-0P, 4-[3-[2R-(4-Benzo[1,3]dioxol-5-yl-3-hydroxybut-1-enyl)-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431990-21-5P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(intermediate; preparation of hydroxyorgano pyrrolidinones as EP4 receptor selective agonists for treatment of hypertension and other disorders)

RN 431989-31-0 CAPLUS

CN Benzoic acid, 4-[3-[(2R)-2-[4-(1,3-benzodioxol-5-yl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

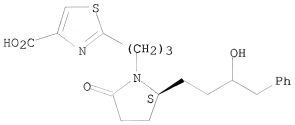
Absolute stereochemistry.
Double bond geometry unknown.



RN 431990-21-5 CAPLUS

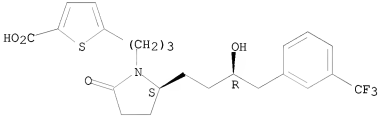
CN 4-Thiazolecarboxylic acid, 2-[3-[(2S)-2-(3-hydroxy-4-phenylbutyl)-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.

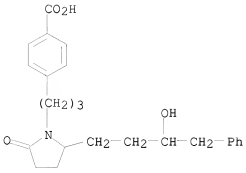


IT 431990-08-8P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of hydroxyorgano pyrrolidinones as EP4 receptor selective agonists for treatment of hypertension and other disorders)
RN 431990-08-8 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-3-hydroxy-4-[3-(trifluoromethyl)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

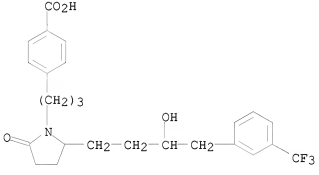
Absolute stereochemistry.



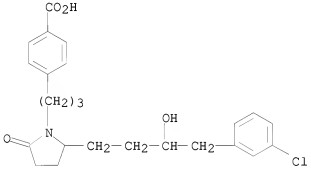
IT 431988-78-2P, 4-[3-[2-(3-Hydroxy-4-phenylbutyl)-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431988-84-0P, 4-[3-[2-[3-Hydroxy-4-(3-trifluoromethylphenyl)butyl]-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431988-90-8P, 4-[3-[2-[4-(3-Chlorophenyl)-3-hydroxybutyl]-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431988-96-4P, 4-[3-[2-[4-(3-Fluorophenyl)-3-hydroxybutyl]-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431989-00-3P, 4-[3-[2-[3-Hydroxy-4-(3-phenoxyphenyl)butyl]-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431989-07-0P, 4-[3-[2-(4-(Biphenyl-3-yl)-3-hydroxybutyl)-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431989-10-5P, 4-[3-[2-[4-(4-Fluorophenyl)-3-hydroxybutyl]-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431989-35-4P, 4-[3-[2S-(4-Benzo[1,3]dioxol-5-yl-3-hydroxybutyl)-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431990-27-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of hydroxyorgano pyrrolidinones as EP4 receptor selective agonists for treatment of hypertension and other disorders)
RN 431988-78-2 CAPLUS
CN Benzoic acid, 4-[3-[2-(3-hydroxy-4-phenylbutyl)-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



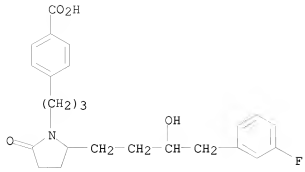
RN 431988-84-0 CAPLUS
CN Benzoic acid, 4-[3-[2-[3-hydroxy-4-[3-(trifluoromethyl)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



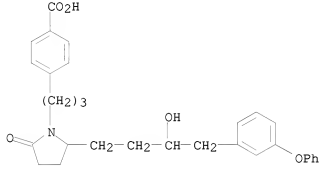
RN 431988-90-8 CAPLUS
CN Benzoic acid, 4-[3-[2-[4-(3-chlorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



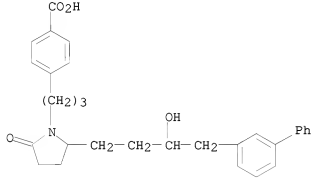
RN 431988-96-4 CAPLUS
CN Benzoic acid, 4-[3-[2-[4-(3-fluorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



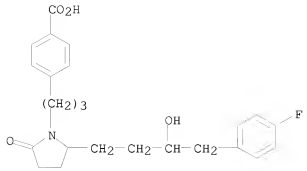
RN 431989-00-3 CAPLUS
CN Benzoic acid, 4-[3-[2-[3-hydroxy-4-(3-phenoxyphenyl)butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



RN 431989-07-0 CAPLUS
CN Benzoic acid, 4-[3-[2-(4-[1,1'-biphenyl]-3-yl-3-hydroxybutyl)-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

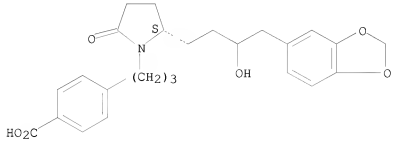


RN 431989-10-5 CAPLUS
CN Benzoic acid, 4-[3-[2-[4-(4-fluorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



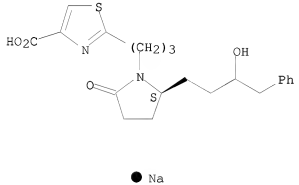
RN 431989-35-4 CAPLUS
CN Benzoic acid, 4-[3-[(2S)-2-[4-(1,3-benzodioxol-5-yl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 431990-27-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[3-[(2S)-2-(3-hydroxy-4-phenylbutyl)-5-oxo-1-pyrrolidinyl]propyl]-, sodium salt (1:1) (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:719446 CAPLUS
DOCUMENT NUMBER: 139:245813

TITLE: Preparation of 8-azaprostaglandin derivatives as EP2 and EP4 receptor agonists

INVENTOR(S): Tani, Kousuke; Kobayashi, Kaoru; Maruyama, Toru; Kambe, Tohru; Ogawa, Mikio; Shiroya, Tsutomu

PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 436 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003074483	A1	20030912	WO 2003-JP2478	20030304
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2477715	A1	20030912	CA 2003-2477715	20030304
AU 2003211574	A1	20030916	AU 2003-211574	20030304
EP 1481976	A1	20041201	EP 2003-743585	20030304
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003008166	A	20050118	BR 2003-8166	20030304
CN 1653046	A	20050810	CN 2003-810251	20030304
NZ 535024	A	20061027	NZ 2003-535024	20030304
RU 2306309	C2	20070920	RU 2004-129584	20030304
CN 101302180	A	20081112	CN 2008-10095385	20030304
ZA 2004007034	A	20050309	ZA 2004-7034	20040902
NO 2004003702	A	20041203	NO 2004-3702	20040903
MX 2004008596	A	20041206	MX 2004-8596	20040903
US 20050124577	A1	20050609	US 2004-506536	20040903
US 7402605	B2	20080722		
US 20090042885	A1	20090212	US 2008-139260	20080613

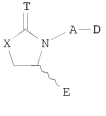
PRIORITY APPLN. INFO.:

JP 2002-58487	A	20020305
JP 2002-216567	A	20020725
JP 2003-13447	A	20030122
CN 2003-810251	A3	20030304
WO 2003-JP2478	W	20030304
US 2004-506536	A3	20040903

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 139:245813

GI



I

AB The title compds. I [T = O, etc.; X = CH2, etc.; A = alkylene, etc.; D = CO2H, etc.; E = U1U2U3, etc.; U1 = alkylene, etc.; U2 = CH2, etc.; U3 = (un)substituted alkyl, etc.] are prepared I are useful in preventing and/or treating immune diseases, allergic diseases, nerve cell death, premature birth, misbirth, baldness, retinal neuropathy such as glaucoma, erectile dysfunction, arthritis, pulmonary injury, pulmonary fibrosis, pulmonary emphysema, bronchitis, chronic obstructive pulmonary disease, hepatic injury, acute hepatitis, cirrhosis, shock, nephritis, renal insufficiency, circulatory diseases, systemic inflammatory response syndrome, sepsis, Still's disease, Kawasaki's disease, burn, systemic granuloma, ulcerative colitis, Crohn's disease, hypercytokinemia at dialysis, multiorgan failure, bone diseases, etc. In an in vitro test for binding to the EP2 receptor, one compound of this invention showed the Ki value of 14 nM. Formulations are given.

IT 597570-99-5P 597571-01-2P 597571-05-6P
597571-06-7P 597571-08-9P 597571-09-0P
597571-10-3P 597571-11-4P 597571-13-6P
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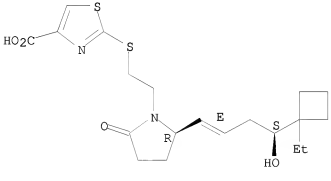
597573-15-4P 597573-16-5P 597573-17-6P
597573-18-7P 597573-19-8P 597573-37-0P
597573-49-4P 597573-54-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 8-azaprostaglandin derivs. as EP2 and EP4 receptor agonists)

RN 597570-99-5 CAPLUS

CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,4S)-4-(1-ethylcyclobutyl)-4-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

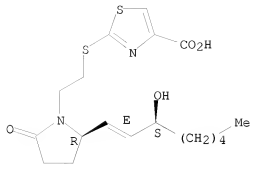
Absolute stereochemistry.
Double bond geometry as shown.



RN 597571-01-2 CAPLUS

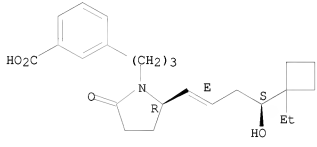
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



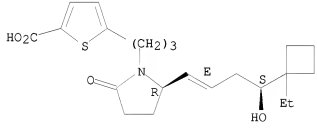
RN 597571-05-6 CAPLUS
CN Benzoic acid, 3-[3-[(2R)-2-[(1E,4S)-4-(1-ethylcyclobutyl)-4-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



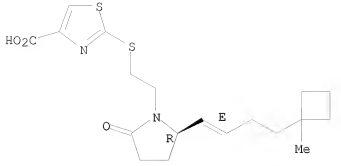
RN 597571-06-7 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2R)-2-[(1E,4S)-4-(1-ethylcyclobutyl)-4-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



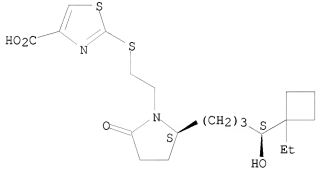
RN 597571-08-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E)-4-(1-methylcyclobutyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



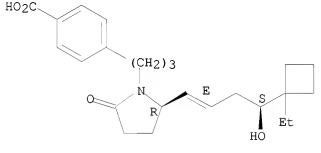
RN 597571-09-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2S)-2-[(4S)-4-(1-ethylcyclobutyl)-4-hydroxybutyl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



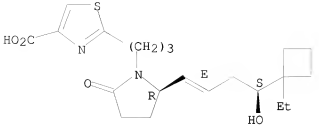
RN 597571-10-3 CAPLUS
CN Benzoic acid, 4-[3-[(2R)-2-[(1E,4S)-4-(1-ethylcyclobutyl)-4-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



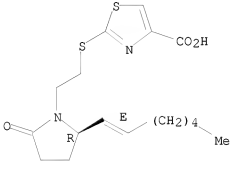
RN 597571-11-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[3-[(2R)-2-[(1E,4S)-4-(1-ethylcyclobutyl)-4-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



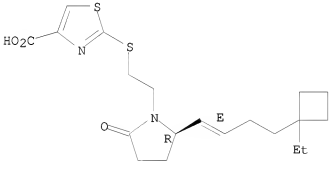
RN 597571-13-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-(1E)-1-hepten-1-yl-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



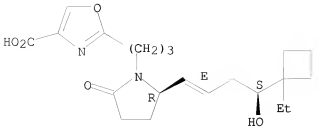
RN 597571-14-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E)-4-(1-ethylcyclobutyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



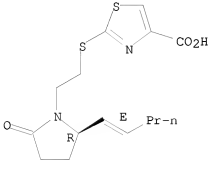
RN 597571-88-5 CAPLUS
CN 4-Oxazolecarboxylic acid, 2-[3-[(2R)-2-[(1E,4S)-4-(1-ethylcyclobutyl)-4-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



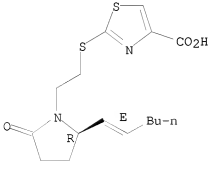
RN 597571-90-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(5R)-2-oxo-5-(1E)-1-penten-1-yl-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



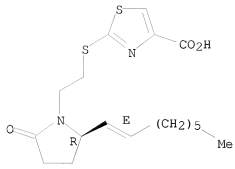
RN 597571-91-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-(1E)-1-hexen-1-yl-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



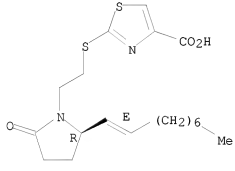
RN 597571-95-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-(1E)-1-octen-1-yl-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



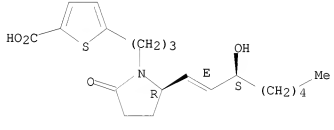
RN 597571-96-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-(1E)-1-nonen-1-yl-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



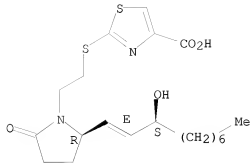
RN 597571-97-6 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2R)-2-[(1E,3S)-3-hydroxy-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



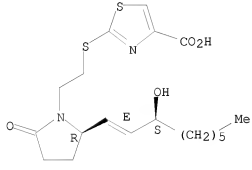
RN 597571-98-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-1-decen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



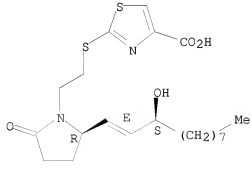
RN 597571-99-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-1-nonen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 597572-00-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-1-undecen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

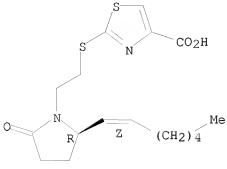
Absolute stereochemistry.
Double bond geometry as shown.



RN 597572-01-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-(1Z)-1-hepten-1-yl-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

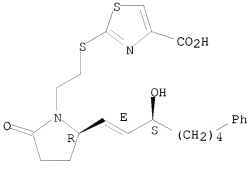
Absolute stereochemistry.

Double bond geometry as shown.



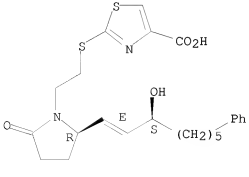
RN 597572-04-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-7-phenyl-1-hepten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 597572-05-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-8-phenyl-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

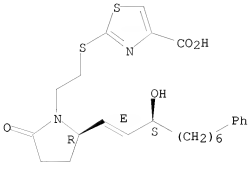
Absolute stereochemistry.
Double bond geometry as shown.



RN 597572-06-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-9-phenyl-1-nonen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

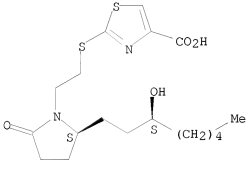
Absolute stereochemistry.

Double bond geometry as shown.



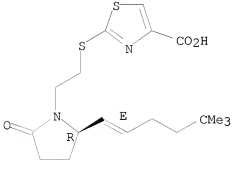
RN 597572-08-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2S)-2-[(3S)-3-hydroxyoctyl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



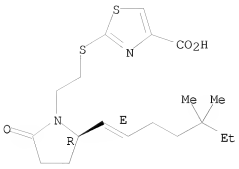
RN 597572-10-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E)-5,5-dimethyl-1-hexen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



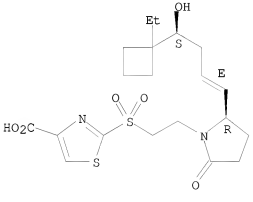
RN 597572-11-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E)-5,5-dimethyl-1-hepten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



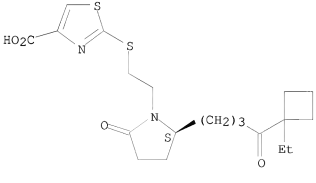
RN 597572-17-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,4S)-4-(1-ethylcyclobutyl)-4-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]sulfonyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



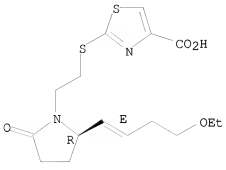
RN 597572-19-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2S)-2-[4-(1-ethylcyclobutyl)-4-oxobutyl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



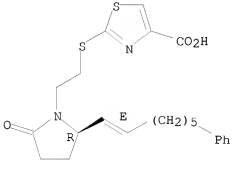
RN 597572-20-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E)-4-ethoxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



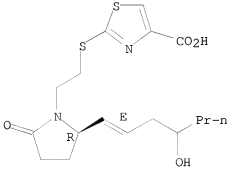
RN 597572-27-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(5R)-2-oxo-5-[(1E)-7-phenyl-1-hepten-1-yl]-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



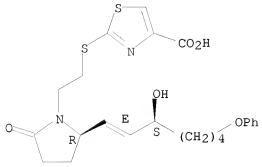
RN 597572-31-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E)-4-hydroxy-1-hepten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



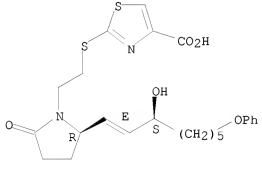
RN 597572-80-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-7-phenoxy-1-hepten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



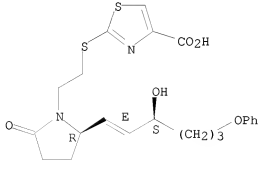
RN 597572-81-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-8-phenoxy-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 597573-15-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-6-phenoxy-1-hexen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

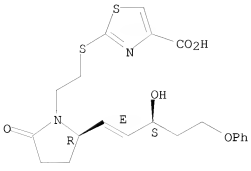
Absolute stereochemistry.
Double bond geometry as shown.



RN 597573-16-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-5-phenoxy-1-penten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

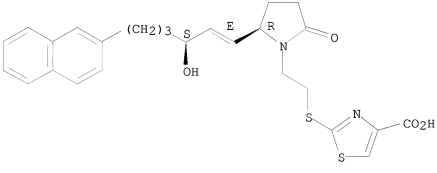
Absolute stereochemistry.

Double bond geometry as shown.



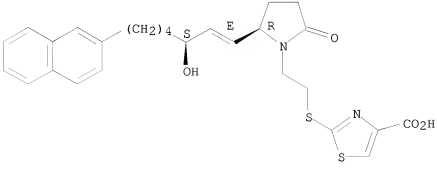
RN 597573-17-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-6-(2-naphthalenyl)-1-hexen-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 597573-18-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-7-(2-naphthalenyl)-1-hepten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

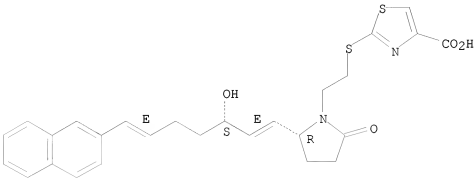
Absolute stereochemistry.
Double bond geometry as shown.



RN 597573-19-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S,6E)-3-hydroxy-7-(2-

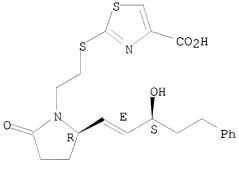
naphthalenyl)-1,6-heptadien-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



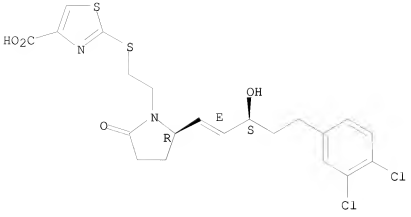
RN 597573-37-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-5-phenyl-1-penten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



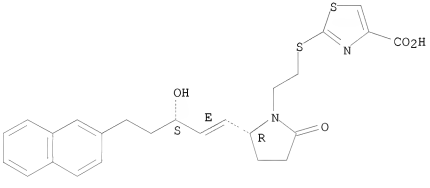
RN 597573-49-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-5-(3,4-dichlorophenyl)-3-hydroxy-1-penten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 597573-54-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-5-(2-naphthalenyl)-1-penten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 22 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:97322 CAPLUS
DOCUMENT NUMBER: 138:142493
TITLE: Remedies for diseases with bone mass loss having EP4 agonist as the active ingredient
INVENTOR(S): Maruyama, Toru; Kobayashi, Kaoru; Kambe, Tohru; Maruyama, Takayuki; Yoshida, Hideyuki; Nishiura, Akio; Abe, Nobutaka
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 474 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003009872	A1	20030206	WO 2002-JP7385	20020722
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2454584	A1	20030206	CA 2002-2454584	20020722
CA 2454584	C	20090922		
AU 2002318759	A1	20030217	AU 2002-318759	20020722
AU 2002318759	B2	20070913		
EP 1417975	A1	20040512	EP 2002-747707	20020722
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BR 2002011364	A	20040713	BR 2002-11364	20020722
CN 1893977	A	20070110	CN 2002-816932	20020722
RU 2303451	C2	20070727	RU 2004-105154	20020722
HU 2006000140	A2	20070828	HU 2006-140	20020722
NZ 530885	A	20070928	NZ 2002-530885	20020722
JP 4273407	B2	20090603	JP 2003-515264	20020722
KR 826866	B1	20080506	KR 2004-700997	20040120
ZA 2004000493	A	20050119	ZA 2004-493	20040122
US 20050020686	A1	20050127	US 2004-484500	20040122
US 7608637	B2	20091027		
NO 2004000331	A	20040323	NO 2004-331	20040123
MX 2004000757	A	20040708	MX 2004-757	20040123
KR 2007043059	A	20070424	KR 2007-707791	20070405
KR 2007087078	A	20070827	KR 2007-716142	20070713
JP 2009137977	A	20090625	JP 2008-329756	20081225
PRIORITY APPLN. INFO.:			JP 2001-222148 A	20010723
			JP 2001-239895 A	20010807
			JP 2002-56449 A	20020301
			JP 2003-515264 A3	20020722
			WO 2002-JP7385 W	20020722
			KR 2004-700997 A3	20040120
			KR 2007-707791 A3	20070405

OTHER SOURCE(S): MARPAT 138:142493

AB Disclosed are drugs for topical administration which contain an EP4 agonist as the active ingredient for preventing and/or treating diseases in association with bone mass loss. The EP4 agonists typified by compds. with the prostaglandin skeleton have an effect of promoting osteogenesis. Thus, topical administration thereof is highly useful in preventing and/or treating diseases in association with bone mass loss, e.g., bone diseases such as primary osteoporosis, secondary osteoporosis, bone metastasis of cancer, hypercalcemia, Behcet's disease, bone loss and bone necrosis, postoperative osteogenesis, alternative therapy for bone transplantation. A compound (11α,15α,13E)-9-oxo-11,15-dihydroxy-16-(3-methoxymethylphenyl)-17,18,19,20-tetranor-5-thiaprost-13-enoic acid 2-nonanoyloxyethyl ester was prepared, and mixed with lactic acid-glycolic acid copolymer to obtain a microsphere. The obtained microsphere was administered to fracture bone part of a rat to examine the bone formation promoting effect.

IT 494222-13-8P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

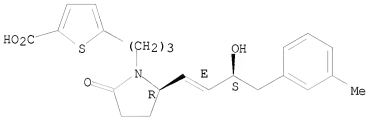
(remedies for diseases with bone mass loss containing prostaglandin EP4 receptor agonists as active ingredients)

RN 494222-13-8 CAPLUS

CN 2-Thiophenecarboxylic acid, 5-[3-[(2R)-2-[(1E,3S)-3-hydroxy-4-(3-methylphenyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



IT 494221-71-5P 494221-94-2P 494222-15-0P
494222-42-3P 494222-47-8P 494223-67-5P
494223-68-6P 494223-69-7P 494223-71-1P
494223-74-4P 494223-75-5P 494223-78-8P
494223-80-2P 494223-81-3P 494223-85-7P
494223-86-8P 494223-90-4P 494223-91-5P
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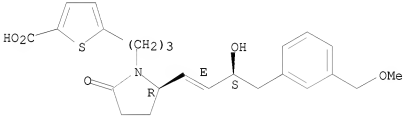
494224-07-6P 494224-08-7P 494224-09-8P
494224-13-4P 494224-14-5P 494224-15-6P
494224-18-9P 494224-19-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(remedies for diseases with bone mass loss containing prostaglandin EP4 receptor agonists as active ingredients)

RN 494221-71-5 CAPLUS

CN 2-Thiophenecarboxylic acid, 5-[3-[(2R)-2-[(1E,3S)-3-hydroxy-4-[3-(methoxymethyl)phenyl]-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

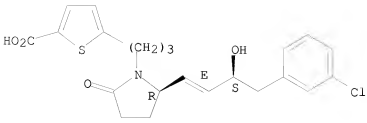


RN 494221-94-2 CAPLUS

CN 2-Thiophenecarboxylic acid, 5-[3-[(2R)-2-[(1E,3S)-4-(3-chlorophenyl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

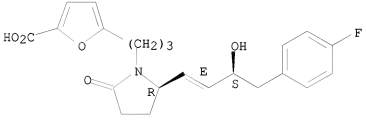
Absolute stereochemistry.

Double bond geometry as shown.



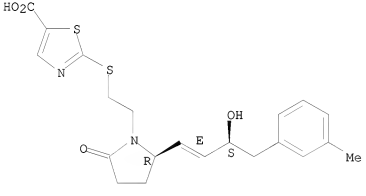
RN 494222-15-0 CAPLUS
CN 2-Furancarboxylic acid, 5-[3-[(2R)-2-[(1E,3S)-4-(4-fluorophenyl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



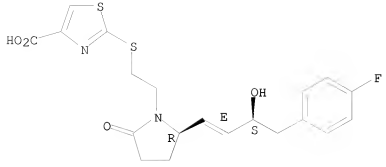
RN 494222-42-3 CAPLUS
CN 5-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-(3-methylphenyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



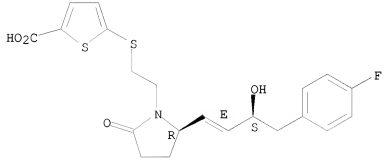
RN 494222-47-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-(4-fluorophenyl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



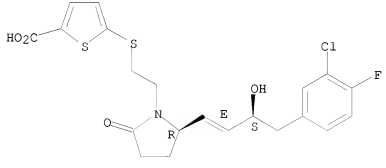
RN 494223-67-5 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[[2-[(2R)-2-[(1E,3S)-4-(4-fluorophenyl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 494223-68-6 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[[2-[(2R)-2-[(1E,3S)-4-(3-chloro-4-fluorophenyl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

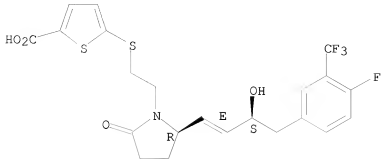
Absolute stereochemistry.
Double bond geometry as shown.



RN 494223-69-7 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[[2-[(2R)-2-[(1E,3S)-4-[4-fluoro-3-(trifluoromethyl)phenyl]-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

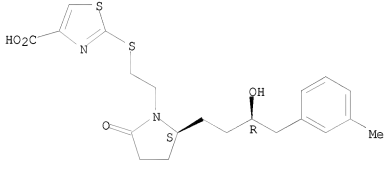
Absolute stereochemistry.

Double bond geometry as shown.



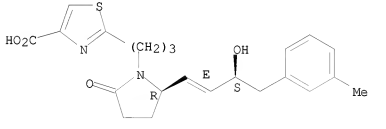
RN 494223-71-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2S)-2-[(3R)-3-hydroxy-4-(3-methylphenyl)butyl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.



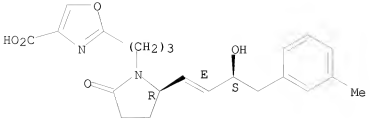
RN 494223-74-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[3-[(2R)-2-[(1E,3S)-3-hydroxy-4-(3-methylphenyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



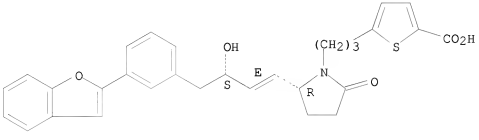
RN 494223-75-5 CAPLUS
CN 4-Oxazolecarboxylic acid, 2-[3-[(2R)-2-[(1E,3S)-3-hydroxy-4-(3-methylphenyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



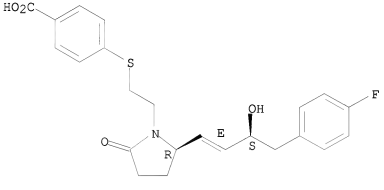
RN 494223-78-8 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2R)-2-[(1E,3S)-4-[3-(2-benzofuranyl)phenyl]-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



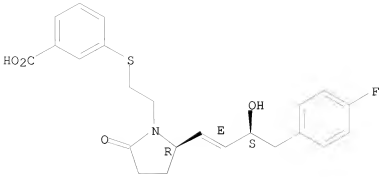
RN 494223-80-2 CAPLUS
CN Benzoic acid, 4-[[2-[(2R)-2-[(1E,3S)-4-(4-fluorophenyl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



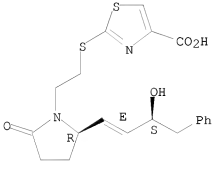
RN 494223-81-3 CAPLUS
CN Benzoic acid, 3-[[2-[(2R)-2-[(1E,3S)-4-(4-fluorophenyl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



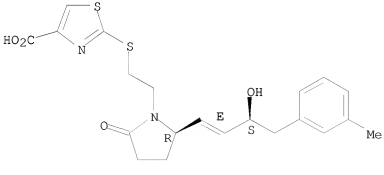
RN 494223-85-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-phenyl-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



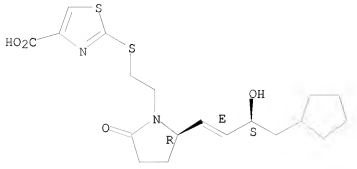
RN 494223-86-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-(3-methylphenyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



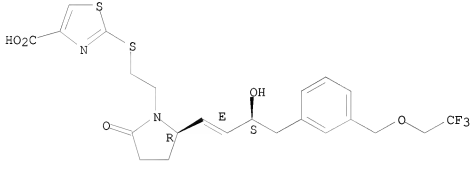
RN 494223-90-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-cyclopentyl-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



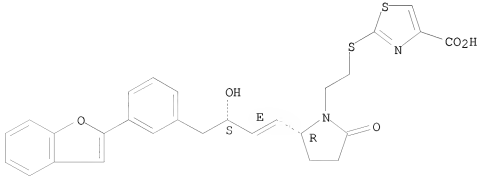
RN 494223-91-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-[3-[(2,2,2-trifluoroethoxy)methyl]phenyl]-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



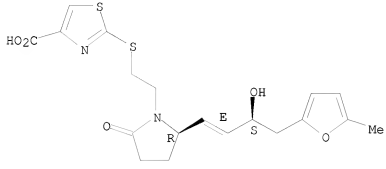
RN 494223-92-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-[3-(2-benzofuranyl)phenyl]-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



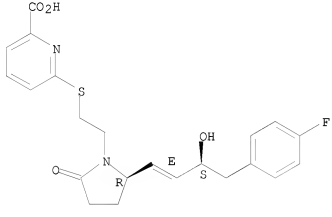
RN 494223-93-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-(5-methyl-2-furanyl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



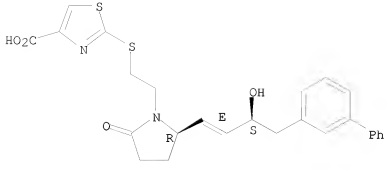
RN 494223-94-8 CAPLUS
CN 2-Pyridinecarboxylic acid, 6-[[2-[(2R)-2-[(1E,3S)-4-(4-fluorophenyl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



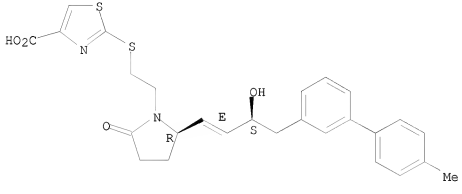
RN 494224-07-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-[1,1'-biphenyl]-3-yl-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



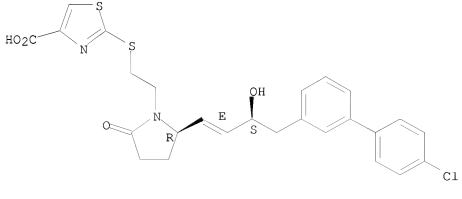
RN 494224-08-7 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-(4'-methyl[1,1'-biphenyl]-3-yl)-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 494224-09-8 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-(4'-chloro[1,1'-biphenyl]-3-yl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

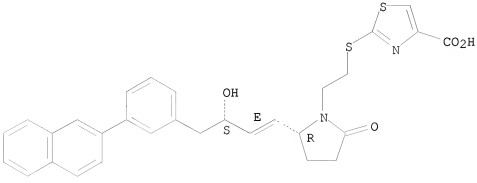
Absolute stereochemistry.
Double bond geometry as shown.



RN 494224-13-4 CAPLUS

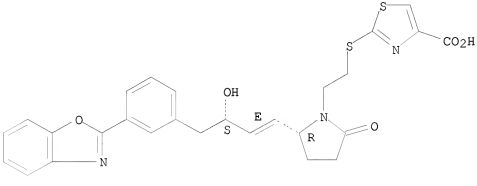
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-[3-(2-naphthalenyl)phenyl]-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



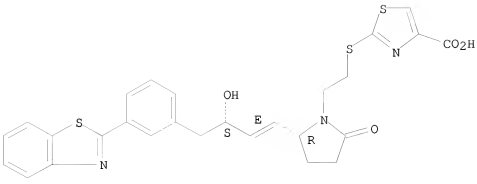
RN 494224-14-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-[3-(2-benzoxazolyl)phenyl]-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



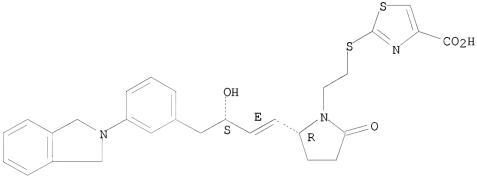
RN 494224-15-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-[3-(2-benzothiazolyl)phenyl]-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



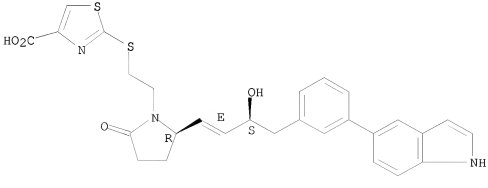
RN 494224-18-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-4-[3-(1,3-dihydro-2H-isoindol-2-yl)phenyl]-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 494224-19-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(2R)-2-[(1E,3S)-3-hydroxy-4-[3-(1H-indol-5-yl)phenyl]-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



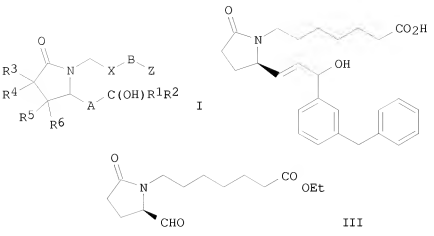
OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS RECORD (21 CITINGS)
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:76747 CAPLUS
DOCUMENT NUMBER: 138:137086
TITLE: Preparation of pyrrolidine prostaglandin analogs for therapeutic use as EP4-type prostanoid receptor agonists
INVENTOR(S): Elworthy, Todd Richard; Mirzadegan, Taraneh; Roepel, Michael Garret; Smith, David Bernard; Walker, Keith Adrian Murray
PATENT ASSIGNEE(S): F. Hoffmann-La Roche AG, Switz.
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003008377	A1	20030130	WO 2002-EP7574	20020708
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2451392	A1	20030130	CA 2002-2451392	20020708
AU 2002328855	A1	20030303	AU 2002-328855	20020708
AU 2002328855	B2	20051124		
EP 1409455	A1	20040421	EP 2002-764647	20020708
EP 1409455	B1	20060104		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002011201	A	20040713	BR 2002-11201	20020708
JP 2004521954	T	20040722	JP 2003-513937	20020708
AT 315022	T	20060215	AT 2002-764647	20020708
ES 2254726	T3	20060616	ES 2002-764647	20020708
CN 1863768	A	20061115	CN 2002-814091	20020708
RU 2288913	C2	20061210	RU 2004-104625	20020708
US 20030120079	A1	20030626	US 2002-197353	20020716
US 6900336	B2	20050531		
MX 2004000456	A	20040318	MX 2004-456	20040115

PRIORITY APPLN. INFO.:			
US 2001-305727P	P	20010716	
US 2002-371348P	P	20020410	
WO 2002-EP7574	W	20020708	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 138:137086
GI



I II III

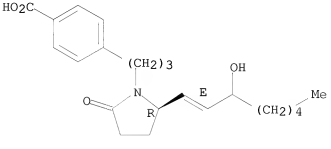
AB 8-Aza prostanoid analogs, such as I [R1 = alkyl, haloalkyl, cycloalkyl, heterocyclyl, aryl, heteroaryl; R2-6 = H, alkyl, alkenyl, alkynyl; A = CH2CH2, CH:CH, CH:CHCH2; B = bond, aryl, heteroaryl; X = (CH2)1-6; Z = CH2OH, CO2H, tetrazol-5-yl, carboxy, carboxamido, phosphonate, etc.], were prepared as selective EP4-type prostanoid receptor agonists for pharmaceutical use in the treatment of bone disorders. Thus, azaprostanoid II was via a series of synthetic steps which included an olefination reaction of ester III with (MeO)2P(O)CH2COC6H4-3-CH2Ph. The prepared azaprostanoids were assayed for competitive binding of [3H]PGE2 to prostanoid types EP1, EP2, EP3, and EP4 receptors. Also, pharmaceutical formulations of the azaprostanoids were presented.

IT 493036-29-6P 493036-30-9P 493036-31-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyrrolidine prostaglandin analogs for therapeutic use as EP4 prostanoid receptor agonists for treatment of bone disorders)

RN 493036-29-6 CAPLUS

CN Benzoic acid, 4-[3-[(2R)-2-[(1E)-3-hydroxy-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

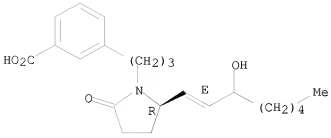
Absolute stereochemistry.
Double bond geometry as shown.



RN 493036-30-9 CAPLUS

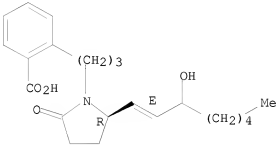
CN Benzoic acid, 3-[3-[(2R)-2-[(1E)-3-hydroxy-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 493036-31-0 CAPLUS
CN Benzoic acid, 2-[3-[(2R)-2-[(1E)-3-hydroxy-1-octen-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:408643 CAPLUS
DOCUMENT NUMBER: 137:6083
TITLE: Preparation of EP4 receptor selective agonists for the treatment of osteoporosis
INVENTOR(S): Cameron, Kimberly O'Keefe; Lefker, Bruce Allen
PATENT ASSIGNEE(S): Pfizer Products Inc., USA
SOURCE: PCT Int. Appl., 122 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002042268	A2	20020530	WO 2001-IB2073	20011105
WO 2002042268	A3	20020725		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2429850	A1	20020530	CA 2001-2429850		20011105
CA 2429850	C	20081230			
AU 2002010848	A	20020603	AU 2002-10848		20011105
EP 1339678	A2	20030903	EP 2001-978757		20011105
EP 1339678	B1	20070926			

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

BR 2001015687	A	20030909	BR 2001-15687		20011105
EE 200300246	A	20031015	EE 2003-246		20011105
JP 2004521869	T	20040722	JP 2002-544404		20011105
JP 3984164	B2	20071003			
HU 2004000807	A2	20040728	HU 2004-807		20011105
NZ 525164	A	20050429	NZ 2001-525164		20011105
AT 374182	T	20071015	AT 2001-978757		20011105
ES 2291361	T3	20080301	ES 2001-978757		20011105
US 20020065308	A1	20020530	US 2001-990556		20011121
US 6552067	B2	20030422			
US 20030149086	A1	20030807	US 2002-326366		20021220
US 6747054	B2	20040608			
BG 107697	A	20040130	BG 2003-107697		20030403
IN 2003MN00390	A	20050211	IN 2003-MN390		20030409
ZA 2003002803	A	20040413	ZA 2003-2803		20030410
NO 2003002360	A	20030723	NO 2003-2360		20030526
MX 2003004623	A	20030905	MX 2003-4623		20030526
US 20040259921	A1	20041223	US 2003-668633		20030923
US 7192979	B2	20070320			
JP 2007197467	A	20070809	JP 2007-127062		20070511

PRIORITY APPLN. INFO.:	US 2000-253275P	P	20001127
	JP 2002-544404	A3	20011105
	WO 2001-IB2073	W	20011105
	US 2001-990556	A3	20011121
	US 2002-326366	A3	20021220

OTHER SOURCE(S): MARPAT 137:6083

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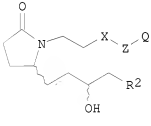


I

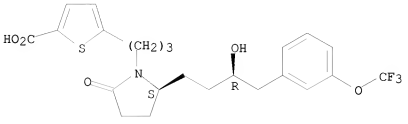
AB This invention is directed to EP4 receptor selective prostaglandin agonists I (e.g. 4-[3-[2-(3-hydroxy-4-phenylbutyl)-5-oxopyrrolidin-1-yl]propyl]benzoic acid), wherein R2, X, Z and Q are defined below and in more detail in the claims. This invention is also directed to pharmaceutical comps. containing those compds. This invention is also directed to methods of treating conditions which present with low bone mass, particularly osteoporosis, frailty, an osteoporotic fracture, a bone defect, childhood idiopathic bone loss, alveolar bone loss, mandibular bone loss, bone fracture, osteotomy, bone loss associated with periodontitis, or prosthetic ingrowth in a mammal comprising administering those compds. Although biol. testing protocols are included, no test results are given.

In I, a prodrug thereof, a pharmaceutically acceptable salt of said compound or said prodrug or a stereoisomer or diastereomeric mixture of said compound, prodrug or salt: the dotted line is a bond or no bond; X is -CH2- or O; Z is -(CH2)3-, thienyl, thiazolyl or Ph, provided that when X is O, then Z is phenyl; Q is carboxy, (C1-C4)alkoxycarbonyl or tetrazolyl; R2 is -Ar or -Ar1-V-Ar2; V is a bond, -O-, -OCH2- or -CH2O-. Ar is a partially saturated, fully saturated or fully unsatd. 5-8 membered ring optionally having 1-4 heteroatoms selected independently from O, S and N, or a bicyclic ring consisting of two fused independently partially saturated, fully saturated or fully unsatd. 5-6 membered rings, taken independently, optionally having 1-4 heteroatoms selected independently from N, S and O, said partially or fully saturated ring or bicyclic ring optionally having 1-2 oxo groups substituted on C or 1-2 oxo groups substituted on S. Ar1 and Ar2 are each independently a partially saturated, fully saturated or fully unsatd. 5-8 membered
ring optionally having 1-4 heteroatoms selected independently from O, S and N, said partially or fully saturated ring optionally having 1-2 oxo groups substituted on C or 1-2 oxo groups substituted on S. Ar is optionally substituted on C or N, on one ring if the moiety is monocyclic, or on one or both rings if the moiety is bicyclic, with up to three substituents per ring each independently selected from hydroxy, halo, carboxy, (C1-C7) alkoxy, (C1-C4)alkoxy(C1-C4)alkyl, (C1-C7)alkyl, (C2-C7)alkenyl, (C3-C7)cycloalkyl, (C3-C7)cycloalkyl(C1-C4)alkyl, (C3-C7)cycloalkyl(C1-C4)alkanoyl, formyl, (C1-C8) alkanoyl, (C1-C6)alkanoyl(C1-C6)alkyl, (C1-C4)alkanoylamino, (C1-C4)alkoxycarbonylamino, hydroxysulfonyl, aminocarbonylamino or mono-N-, di-N,N-, di-N,N'- or tri-N,N,N'-(C1-C4)alkyl substituted aminocarbonylamino, sulfonamido, (C1-C4)alkylsulfonamido, amino, mono-N- or di-N,N-(C1-C4)alkylamino, carbamoyl, mono-N- or di-N,N-(C1-C4)alkylcarbamoyl, cyano, thiol, (C1-C6)alkylthio, (C1-C6)alkylsulfinyl, (C1-C4)alkylsulfonyl and mono-N- or di-N,N-(C1-C4)alkylaminosulfinyl, wherein said alkyl and alkoxy substituents in the definition of Ar are optionally substituted on C with up to three fluoro. Ar1 and Ar2 are independently optionally substituted on C or N with up to three substituents each independently selected from hydroxy, halo, carboxy, (C1-C7)alkoxy, (C1-C4)alkoxy(C1-C4)alkyl, (C1-C7)alkyl, (C2-C7)alkenyl, (C3-C7)cycloalkyl, (C3-C7)cycloalkyl(C1-C4)alkyl, (C3-C7)cycloalkyl(C1-C4)alkanoyl, formyl, (C1-C8)alkanoyl, (C1-C6)alkanoyl(C1-C6)alkyl, (C1-C4)alkanoylamino, (C1-C4)alkoxycarbonylamino, hydroxysulfonyl, aminocarbonylamino or mono-N-, di-N,N-, di-N,N'- or tri-N,N,N'-(C1-C4)alkyl substituted aminocarbonylamino, sulfonamido, (C1-C4)alkylsulfonamido, amino, mono-N- or di-N,N-(C1-C4)alkylamino, carbamoyl, mono-N- or di-N,N-(C1-C4)alkylcarbamoyl, cyano, thiol, (C1-C6)alkylthio, (C1-C6)alkylsulfinyl, (C1-C4)alkylsulfonyl and mono-N- or di-N,N-(C1-C4)alkylaminosulfinyl, wherein said alkyl and alkoxy substituents in the definition of Ar1 and Ar2 are optionally substituted on C with up to three fluoro. (a) when X is (CH2)- and Z is -(CH2)3-, then R2 is not thienyl, Ph or Ph monosubstituted with chloro, fluoro, Ph, methoxy, trifluoromethyl or (C1-C4) alkyl; and (b) when X is (CH2)-, Z is -(CH2)3-, and Q is carboxy or (C1-C4) alkoxycarbonyl, then R2 is not (i) (C5-C7)cycloalkyl or (ii)phenyl, thienyl or furyl each of which may be optionally monosubstituted or disubstituted by one or two substituents selected, independently in the latter case, from halogen atoms, alkyl groups having 1-3 C atoms which may be substituted by one or more halogen atoms, and alkoxy groups having 1-4 C atoms. Although the methods of preparation are not claimed, 41 example prepns. are included.

IT 431991-28-5, 5-[3-[(2S)-[(3R)-Hydroxy-4-(3-trifluoromethoxyphenyl)butyl]-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

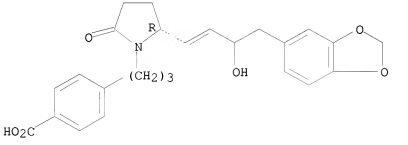
(EP4 receptor selective agonist for treatment of osteoporosis)
RN 431991-28-5 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-3-hydroxy-4-[3-(trifluoromethoxy)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



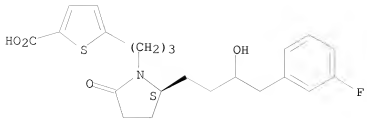
IT 431989-31-0P, 4-[3-[2R-(4-Benzo[1,3]dioxol-5-yl-3-hydroxybut-1-enyl)-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431989-84-3P, 5-[3-[(2S)-[4-(3-Fluorophenyl)-3-hydroxybutyl]-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid 431990-21-5P, 2-[3-[(2S)-(3-Hydroxy-4-phenylbutyl)-5-oxopyrrolidin-1-yl]propyl]thiazole-4-carboxylic acid
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(intermediate; preparation of EP4 receptor selective agonists for treatment of osteoporosis)
RN 431989-31-0 CAPLUS
CN Benzoic acid, 4-[3-[(2R)-2-[4-(1,3-benzodioxol-5-yl)-3-hydroxy-1-buten-1-yl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



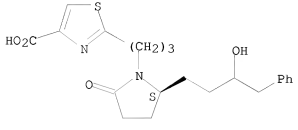
RN 431989-84-3 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[4-(3-fluorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 431990-21-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[3-[(2S)-2-(3-hydroxy-4-phenylbutyl)-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

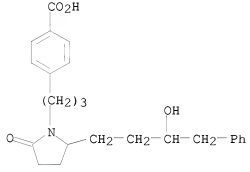
Absolute stereochemistry.



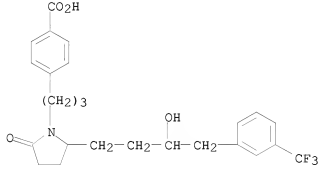
IT 431988-78-2P, 4-[3-[2-(3-Hydroxy-4-phenylbutyl)-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431988-84-0P, 4-[3-[2-[3-Hydroxy-4-(3-trifluoromethylphenyl)butyl]-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431988-90-8P, 4-[3-[2-[4-(3-Chlorophenyl)-3-hydroxybutyl]-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431988-96-4P, 4-[3-[2-[4-(3-Fluorophenyl)-3-hydroxybutyl]-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431989-00-3P, 4-[3-[2-[3-Hydroxy-4-(3-phenoxyphenyl)butyl]-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431989-07-0P, 4-[3-[2-(4-(Biphenyl-3-yl)-3-hydroxybutyl)-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431989-10-5P, 4-[3-[2-[4-(4-Fluorophenyl)-3-hydroxybutyl]-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431989-35-4P, 4-[3-[2S-(4-Benzo[1,3]dioxol-5-yl-3-hydroxybutyl)-5-oxopyrrolidin-1-yl]propyl]benzoic acid 431989-52-5P, 5-[3-[2S-(3-Hydroxy-4-thiophen-2-ylbutyl)-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid 431989-58-1P, 5-[3-[2S-[4-(4-Chlorophenyl)-3-hydroxybutyl]-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid 431989-62-7P, 5-[3-[2S-[3-Hydroxy-4-(2-trifluoromethylphenyl)butyl]-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid 431989-67-2P, 5-[3-[2S-[4-(4-Fluorophenyl)-3-hydroxybutyl]-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid 431989-71-8P, 5-[3-[2S-[4-(4-Fluorophenyl)-3R-hydroxybutyl]-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid 431989-74-1P, 5-[3-[(2S)-(3-Hydroxy-4-naphthalen-2-ylbutyl)-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid 431989-79-6P, 5-[3-[(2S)-(4-(Biphenyl-3-yl)-3-hydroxybutyl)-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid 431989-89-8P, Sodium salt of 5-[3-[(2S)-[4-(3-Fluorophenyl)-3-hydroxybutyl]-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid 431989-90-1P, 5-[3-[(2S)-[4-(4-Ethylphenyl)-3-hydroxybutyl]-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid 431989-95-6P,

5-[3-[(2S)-[4-(4-Fluoro-3-methylphenyl)-3-hydroxybutyl]-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid 431990-00-0P,
5-[3-[(2S)-(3-Hydroxy-4-phenylbutyl)-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid 431990-04-4P,
5-[3-[(2S)-[4-(3-Chlorophenyl)-(3R)-hydroxybutyl]-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid 431990-08-8P,
5-[3-[(2S)-[(3R)-Hydroxy-4-(3-trifluoromethylphenyl)butyl]-5-oxopyrrolidin-1-yl]propyl]thiophene-2-carboxylic acid 431990-27-1P, Sodium salt of 2-[3-[(2S)-(3-hydroxy-4-phenylbutyl)-5-oxopyrrolidin-1-yl]propyl]thiazole-4-carboxylic acid
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of EP4 receptor selective agonists for treatment of osteoporosis)

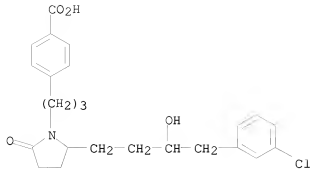
RN 431988-78-2 CAPLUS
CN Benzoic acid, 4-[3-[2-(3-hydroxy-4-phenylbutyl)-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



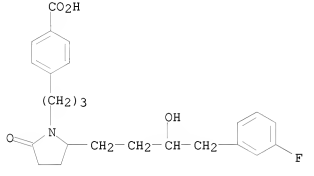
RN 431988-84-0 CAPLUS
CN Benzoic acid, 4-[3-[2-[3-hydroxy-4-[3-(trifluoromethyl)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



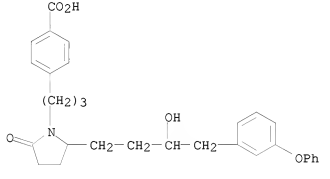
RN 431988-90-8 CAPLUS
CN Benzoic acid, 4-[3-[2-[4-(3-chlorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



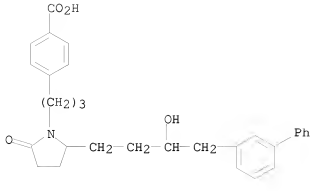
RN 431988-96-4 CAPLUS
CN Benzoic acid, 4-[3-[2-[4-(3-fluorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



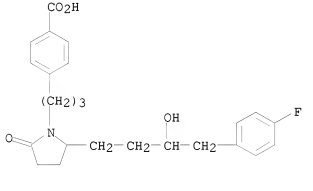
RN 431989-00-3 CAPLUS
CN Benzoic acid, 4-[3-[2-[3-hydroxy-4-(3-phenoxyphenyl)butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



RN 431989-07-0 CAPLUS
CN Benzoic acid, 4-[3-[2-(4-[1,1'-biphenyl]-3-yl-3-hydroxybutyl)-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

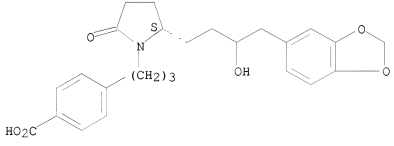


RN 431989-10-5 CAPLUS
CN Benzoic acid, 4-[3-[2-[4-(4-fluorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)



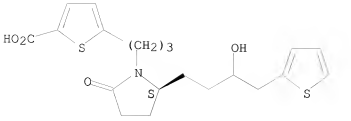
RN 431989-35-4 CAPLUS
CN Benzoic acid, 4-[3-[(2S)-2-[4-(1,3-benzodioxol-5-yl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



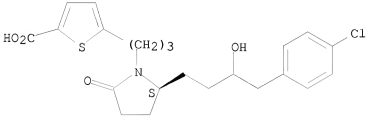
RN 431989-52-5 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[3-hydroxy-4-(2-thienyl)butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



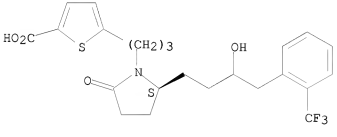
RN 431989-58-1 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[4-(4-chlorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



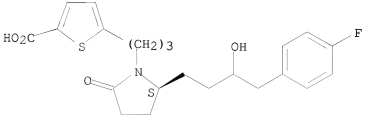
RN 431989-62-7 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[3-hydroxy-4-[2-(trifluoromethyl)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 431989-67-2 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[4-(4-fluorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

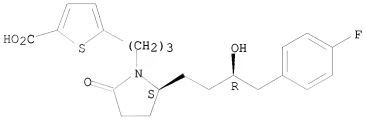
Absolute stereochemistry.



RN 431989-71-8 CAPLUS

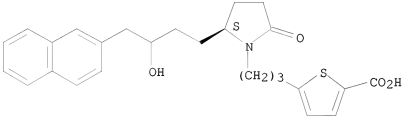
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-4-(4-fluorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



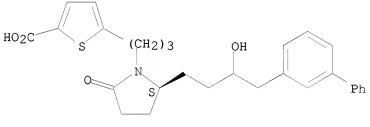
RN 431989-74-1 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[3-hydroxy-4-(2-naphthalenyl)butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



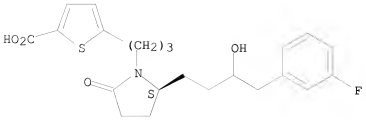
RN 431989-79-6 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-(4-[1,1'-biphenyl]-3-yl-3-hydroxybutyl)-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 431989-89-8 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[4-(3-fluorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]-, sodium salt (1:1) (CA INDEX NAME)

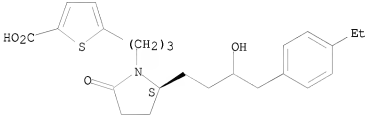
Absolute stereochemistry.



● Na

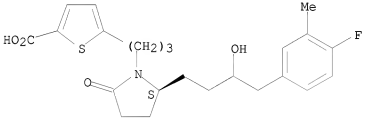
RN 431989-90-1 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[4-(4-ethylphenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



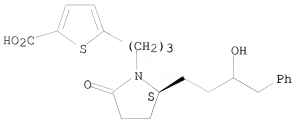
RN 431989-95-6 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[4-(4-fluoro-3-methylphenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



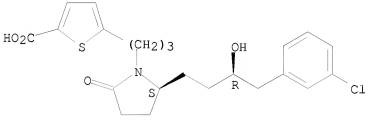
RN 431990-00-0 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-(3-hydroxy-4-phenylbutyl)-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



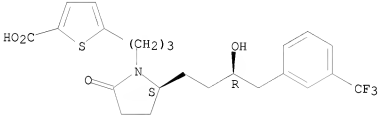
RN 431990-04-4 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-4-(3-chlorophenyl)-3-hydroxybutyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



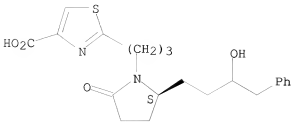
RN 431990-08-8 CAPLUS
CN 2-Thiophenecarboxylic acid, 5-[3-[(2S)-2-[(3R)-3-hydroxy-4-[3-(trifluoromethyl)phenyl]butyl]-5-oxo-1-pyrrolidinyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 431990-27-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[3-[(2S)-2-(3-hydroxy-4-phenylbutyl)-5-oxo-1-pyrrolidinyl]propyl]-, sodium salt (1:1) (CA INDEX NAME)

Absolute stereochemistry.



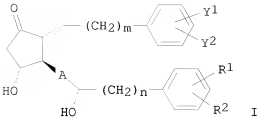
● Na

OS.CITING REF COUNT: 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (23 CITINGS)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 25 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2001:185716 CAPLUS
DOCUMENT NUMBER: 134:222562
TITLE: Preparation of prostaglandin E analogues inhibiting proliferation of vascular smooth muscle
INVENTOR(S): Sato, Fumie; Tanami, Tohru; Tanaka, Hideo; Ono, Naoya; Yagi, Makoto
PATENT ASSIGNEE(S): Taisho Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001017957	A1	20010315	WO 2000-JP6021	20000905
W: AU, CA, CN, JP, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2384148	A1	20010315	CA 2000-2384148	20000905
EP 1211241	A1	20020605	EP 2000-956933	20000905
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
AU 770343	B2	20040219	AU 2000-68712	20000905
CN 1170817	C	20041013	CN 2000-814946	20000905
US 6482990	B1	20021119	US 2002-70154	20020304
HK 1051179	A1	20050506	HK 2003-103446	20030515
PRIORITY APPLN. INFO.:			JP 1999-252247 A	19990906
			WO 2000-JP6021 W	20000905

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 134:222562
GI



I

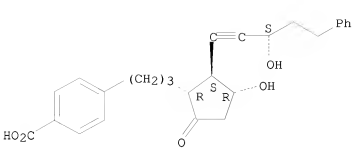
AB Prostaglandin analogs represented by general formula (I), pharmaceutically acceptable salts thereof, or hydrates of both [wherein A is ethylene, vinylene or ethynylene; Y1 and Y2 are each independently hydrogen, halogeno, cyano, CONR3R4 (wherein R3 and R4 are each independently hydrogen or C1-6 alkyl, or R3 and R4 together with the nitrogen atom adjacent thereto may form C4-8 cyclic amine), C1-3 aminoalkyl, C1-6 hydroxyalkyl, NR5R6 (wherein R3 and R4 are each independently hydrogen or C1-6 alkyl), hydroxyl, C1-6 alkoxy, C1-9 alkyl, C1-6 haloalkyl, C1-5 acyl, or CO2R7 (wherein R7 is hydrogen, C1-6 alkyl, or phenyl); R1 and R2 are each independently hydrogen, halogeno, C1-9 alkyl, or C1-6 haloalkyl; m is an integer of 0 to 6; and n is an integer of 0 to 3] are prepared These compds. are useful for the prevention or treatment of restenosis after percutaneous transluminal coronary angioplasty (PTCA). Thus, a THF solution of CuCN.2LiCl (1 M, 53.1 mL) was added to a THF solution of 2-(4-methoxycarbonylphenyl)ethylzinc(II) iodide (0.95 M, 64.5 mL) at -70° and stirred at the same temperature for 20 min, followed by adding a Et2O solution of (3R,4R)-2-methylene-3-[(1E,3S)-3-(tert-butyldimethylsilyloxy)-5-phenylpent-1-enyl]-4-(tert-butyldimethylsilyloxy)cyclopentan-1-one (preparation given) (0.25 M, 163 mL) and 11.0 mL Me3SiCl at -70°, and the resulting mixture was warmed to 0° over a period of .apprx.1 h to give, after workup and hydrolysis in the presence of pyridinium p-toluenesulfonate in Et2O-iso-Pr alc., 16.75 g 2,3,4,18,19,20-hexanor-1,5-inter-p-phenylene-17-phenylprostaglandin E1 Me ester 11,15-bis(tert-butyldimethylsilyl ether). The latter compound (16.75 g) was dissolved in MeCN, treated with 189 mL 46% aqueous HF solution, and stirred for 1 h to give 8.91 g 2,3,4,18,19,20-hexanor-1,5-inter-p-phenylene-17-phenylprostaglandin E1 Me ester (II). In a DNA synthesis inhibition assay, II showed IC50 of 0.66 μM for inhibiting the 3H-thymidine uptake in human vascular smooth muscle cells. A capsule formulation containing II was prepared

IT 329313-96-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of prostaglandin E analogs inhibiting proliferation of vascular smooth muscle for prevention or treatment of restenosis after percutaneous transluminal coronary angioplasty)

RN 329313-96-4 CAPLUS

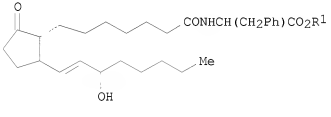
CN Benzoic acid, 4-[3-[(1R,2S,3R)-3-hydroxy-2-[(3S)-3-hydroxy-5-phenyl-1-pentyn-1-yl]-5-oxocyclopentyl]propyl]- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

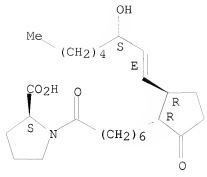
L4 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1995:725888 CAPLUS
DOCUMENT NUMBER: 123:313586
ORIGINAL REFERENCE NO.: 123:56207a,56210a
TITLE: Total synthesis and properties of prostaglandins. Part XXXVIII. Synthesis of 11-deoxyprostaglandin E1 amino acid and amine derivatives
AUTHOR(S): Sokolov, G. P.; Freimanis, Ya. F.; Turovskii, I. V.; Myshlyakova, N. V.
CORPORATE SOURCE: Inst. Org. Synth. Latvia, Riga, Latvia
SOURCE: Bioorganicheskaya Khimiya (1995), 21(5), 386-90
CODEN: BIKHD7; ISSN: 0132-3423
PUBLISHER: Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI



I

AB 11-Deoxyprostaglandin E1-α amides with amino acids and amines, e.g., I (R1 = H, Me), were prepared by the mixed anhydride technique. The myotrophic properties of the products were determined
IT 170235-70-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and myotrophic activity of deoxyprostaglandin E1-α amides)
RN 170235-70-8 CAPLUS
CN L-Proline, 1-[(13E,15S)-15-hydroxy-1,9-dioxoprost-13-en-1-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



L4 ANSWER 27 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1981:586713 CAPLUS
DOCUMENT NUMBER: 95:186713
ORIGINAL REFERENCE NO.: 95:31153a,31156a
TITLE: Prostaglandins having a cyclopropane ring in the 2,3 position
INVENTOR(S): Bollinger, Pietro
PATENT ASSIGNEE(S): Sandoz A.-G., Switz.
SOURCE: U.S., 22 pp. Cont. of U.S. Ser. No. 848,814, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4273784	A	19810616	US 1979-24558	19790328
CH 599147	A5	19780512	CH 1973-9959	19730709
BE 817383	A1	19750108	BE 1974-146337	19740708
ZA 7404410	A	19760331	ZA 1974-4410	19740709
DK 7504385	A	19750929	DK 1975-4385	19750929
BE 845870	A1	19770303	BE 1976-170371	19760903
ZA 7605299	A	19780426	ZA 1976-5299	19760903
BE 849302	A4	19770610	BE 1976-173172	19761210
ZA 7607365	A	19780726	ZA 1976-7365	19761210

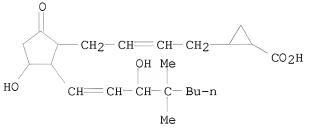
PRIORITY APPLN. INFO.:

CH 1973-9959	A	19730709
CH 1974-6049	A	19740504
US 1974-485310	A2	19740702
CH 1975-1651	A	19750211
CH 1975-11593	A	19750905
CH 1975-12727	A	19751001
CH 1975-16143	A	19751212
CH 1975-16281	A	19751216
US 1975-642189	A2	19751218
US 1975-645546	A2	19751231
CH 1976-102	A	19760107
CH 1976-103	A	19760107
US 1976-720315	A2	19760903
US 1976-749497	A1	19761210
US 1977-848814	A1	19771107
DK 1974-3529	A	19740701

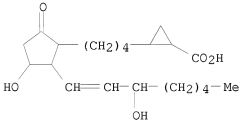
OTHER SOURCE(S): MARPAT 95:186713
AB Approx. 120 known 2,3-methano prostaglandin analogs was prepared conventionally.

IT 57911-34-9P 58688-66-7P 63050-32-8P
63050-37-3P 63050-40-8P 63050-44-2P
63050-45-3P 63050-50-0P 63050-51-1P
63050-52-2P 63050-56-6P 63050-58-8P
63050-66-8P 63050-69-1P 63050-72-6P
63050-76-0P 63088-39-1P 63088-41-5P
63088-42-6P 63088-48-2P 63088-52-8P
63088-59-5P 63088-62-0P 63088-63-1P
63121-45-9P 64244-51-5P 79541-93-8P
79617-21-3P 79617-24-6P 79617-25-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

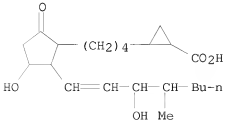
RN 57911-34-9 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octen-1-yl)-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)



RN 58688-66-7 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-1-octen-1-yl)-5-oxocyclopentyl]butyl]- (CA INDEX NAME)



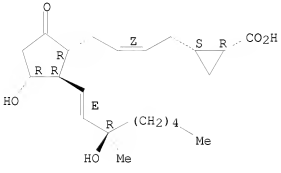
RN 63050-32-8 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4-methyl-1-octen-1-yl)-5-oxocyclopentyl]butyl]- (CA INDEX NAME)



RN 63050-37-3 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-3-methyl-1-

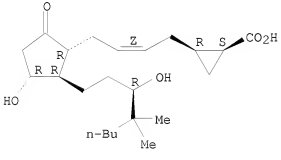
octenyl)-5-oxocyclopentyl]-2-butenyl]-,
[1R-[1α[Z(1R*,2S*)],2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



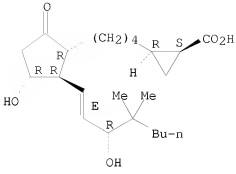
RN 63050-40-8 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyloctyl)-5-oxocyclopentyl]-2-butenyl]-,
[1R-[1α[Z(1S*,2R*)],2β(R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



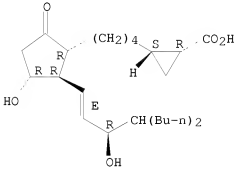
RN 63050-44-2 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octenyl)-5-oxocyclopentyl]butyl]-,
[1R-[1α(1S*,2R*),2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



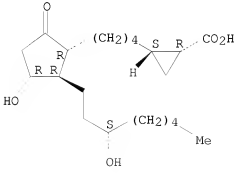
RN 63050-45-3 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(4-butyl-3-hydroxy-1-octenyl)-3-hydroxy-5-oxocyclopentyl]butyl]-, [1R-[1α(1R*,2S*),2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

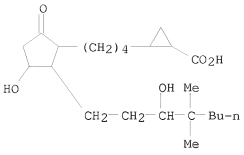


RN 63050-50-0 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxyoctyl)-5-oxocyclopentyl]butyl]-, [1R-[1α(1R*,2S*),2β(S*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

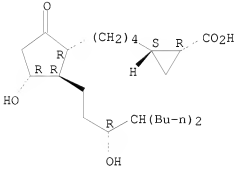


RN 63050-51-1 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyloctyl)-5-oxocyclopentyl]butyl]- (CA INDEX NAME)

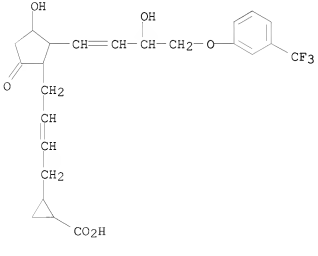


RN 63050-52-2 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(4-butyl-3-hydroxyoctyl)-3-hydroxy-5-oxocyclopentyl]butyl]-, [1R-[1α(1R*,2S*),2β(R*),3α]]- (9CI) (CA INDEX NAME)

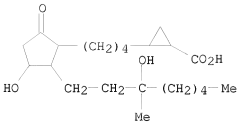
Absolute stereochemistry.



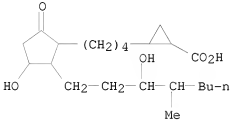
RN 63050-56-6 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-[3-hydroxy-4-[3-(trifluoromethyl)phenoxy]-1-buten-1-yl]-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)



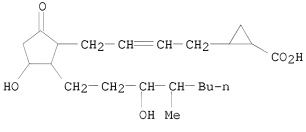
RN 63050-58-8 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-3-methyloctyl)-5-oxocyclopentyl]butyl]- (CA INDEX NAME)



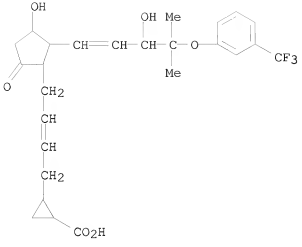
RN 63050-66-8 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4-methyloctyl)-5-oxocyclopentyl]butyl]- (CA INDEX NAME)



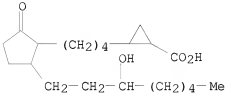
RN 63050-69-1 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4-methyloctyl)-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)



RN 63050-72-6 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-[3-hydroxy-4-methyl-4-[3-(trifluoromethyl)phenoxy]-1-penten-1-yl]-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)

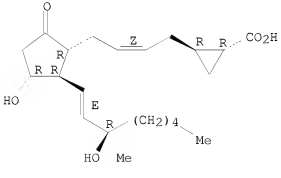


RN 63050-76-0 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(3-hydroxyoctyl)-5-oxocyclopentyl]butyl]- (CA INDEX NAME)



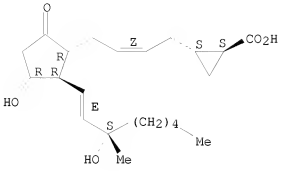
RN 63088-39-1 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-3-methyl-1-octenyl)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1R*,2R*)],2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



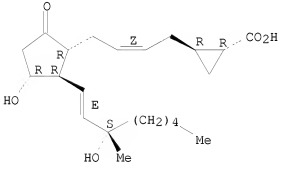
RN 63088-41-5 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-3-methyl-1-octenyl)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1S*,2S*)],2β(1E,3S*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



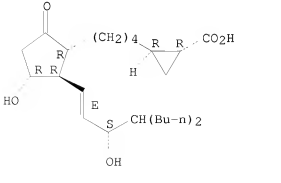
RN 63088-42-6 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-3-methyl-1-octenyl)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1R*,2R*)],2β(1E,3S*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



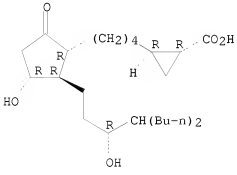
RN 63088-48-2 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(4-butyl-3-hydroxy-1-octenyl)-3-hydroxy-5-oxocyclopentyl]butyl]-, [1R-[1α(1R*,2R*),2β(1E,3S*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



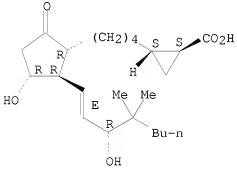
RN 63088-52-8 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(4-butyl-3-hydroxyoctyl)-3-hydroxy-5-oxocyclopentyl]butyl]-, [1R-[1α(1R*,2R*),2β(R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



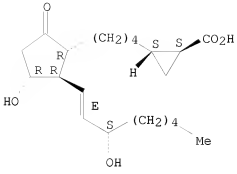
RN 63088-59-5 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octenyl)-5-oxocyclopentyl]butyl]-, [1R-[1α(1S*,2S*),2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



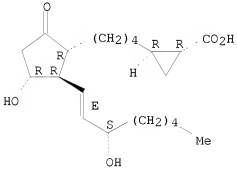
RN 63088-62-0 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-1-octenyl)-5-oxocyclopentyl]butyl]-, [1R-[1α(1S*,2S*),2β(1E,3S*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



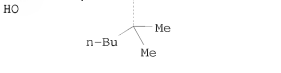
RN 63088-63-1 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-1-octenyl)-5-oxocyclopentyl]butyl]-, [1R-[1α(1R*,2R*),2β(1E,3S*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

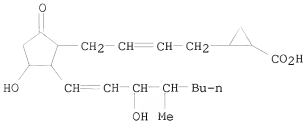


RN 63121-45-9 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyloctyl)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1S*,2S*)],2β(S*),3α]]- (9CI) (CA INDEX NAME)

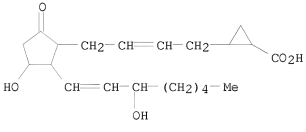
Absolute stereochemistry.
Double bond geometry as shown.



RN 64244-51-5 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4-methyl-1-octen-1-yl)-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)

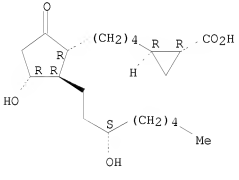


RN 79541-93-8 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-1-octen-1-yl)-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)



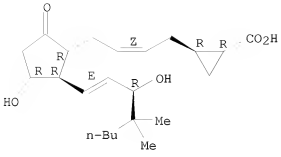
RN 79617-21-3 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxyoctyl)-5-oxocyclopentyl]butyl]-, [1R-[1α(1R*,2R*),2β(S*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



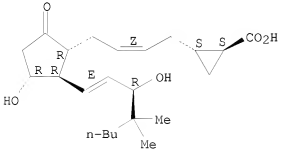
RN 79617-24-6 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octenyl)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1R*,2R*)],2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 79617-25-7 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octenyl)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1S*,2S*)],2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L4 ANSWER 28 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1981:461608 CAPLUS
DOCUMENT NUMBER: 95:61608
ORIGINAL REFERENCE NO.: 95:10399a,10402a
TITLE: Monodeuterated prostaglandins
INVENTOR(S): Bollingen, Pietro; Krieger, Manfred
PATENT ASSIGNEE(S): Sandoz A.-G., Switz.
SOURCE: U.S., 9 pp. Cont. of U.S. Ser. No. 914,401, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4259523	A	19810331	US 1979-37719	19790511
PRIORITY APPLN. INFO.:			US 1976-697403	A2 19760618
			US 1976-740182	A1 19761109
			US 1978-914401	A1 19780612

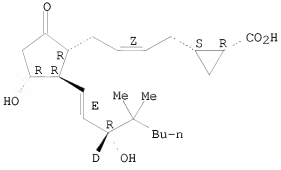
OTHER SOURCE(S): MARPAT 95:61608
AB A series of known 15-deutero prostaglandins was prepared conventionally.
IT 62514-97-0P 62515-02-0P 62515-05-3P

62515-08-6P 62515-10-0P 62515-11-1P
62515-15-5P 62561-00-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 62514-97-0 CAPLUS

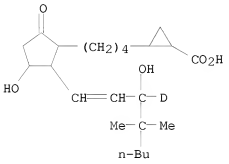
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octenyl-3-d)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1R*,2S*)],2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 62515-02-0 CAPLUS

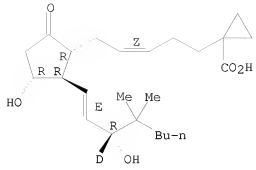
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octenyl-3-d)-5-oxocyclopentyl]butyl]- (9CI) (CA INDEX NAME)



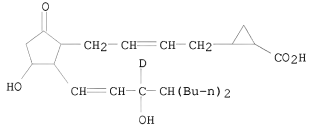
RN 62515-05-3 CAPLUS

CN Cyclopropanecarboxylic acid, 1-[5-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octenyl-3-d)-5-oxocyclopentyl]-3-pentenyl]-, [1R-[1α(Z),2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

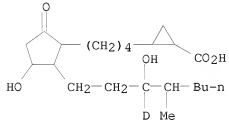
Absolute stereochemistry.
Double bond geometry as shown.



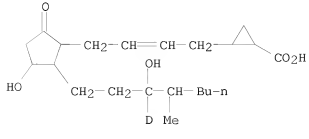
RN 62515-08-6 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(4-butyl-3-hydroxy-1-octenyl-3-d)-3-hydroxy-5-oxocyclopentyl]-2-butenyl]- (9CI) (CA INDEX NAME)



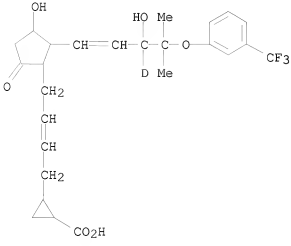
RN 62515-10-0 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4-methyloctyl-3-d)-5-oxocyclopentyl]butyl]- (9CI) (CA INDEX NAME)



RN 62515-11-1 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4-methyloctyl-3-d)-5-oxocyclopentyl]-2-butenyl]- (9CI) (CA INDEX NAME)

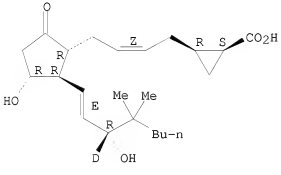


RN 62515-15-5 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-[3-hydroxy-4-methyl-4-[3-(trifluoromethyl)phenoxy]-1-pentenyl-3-d]-5-oxocyclopentyl]-2-butenyl]-(9CI) (CA INDEX NAME)



RN 62561-00-6 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octenyl-3-d)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1S*,2R*)],2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



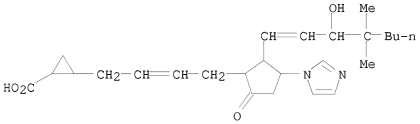
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L4 ANSWER 29 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1981:442470 CAPLUS
DOCUMENT NUMBER: 95:42470
ORIGINAL REFERENCE NO.: 95:7265a,7268a
TITLE: Prostanoic ergolin-8-yl esters, thioesters, and amides
INVENTOR(S): Wenger, Roland
PATENT ASSIGNEE(S): Sandoz A.-G., Switz.
SOURCE: U.S., 9 pp. Cont. of U.S. Ser. No. 773,663, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent

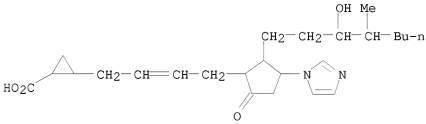
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 4249001	A	19810203	US 1979-55802		19790709
SE 7701916	A	19771028	SE 1977-1916		19770222
AU 7722819	A	19780907	AU 1977-22819		19770301
PRIORITY APPLN. INFO.:			CH 1976-5268	A	19760427
			CH 1977-2059	A	19770218
			US 1977-773663	A1	19770302

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 95:42470
AB A series of known title compds. was prepared conventionally.
IT 65428-29-7P 65428-30-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 65428-29-7 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(3-hydroxy-4,4-dimethyl-1-octen-1-yl)-3-(1H-imidazol-1-yl)-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)



RN 65428-30-0 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(3-hydroxy-4-methyloctyl)-3-(1H-imidazol-1-yl)-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L4 ANSWER 30 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1979:610969 CAPLUS
DOCUMENT NUMBER: 91:210969
ORIGINAL REFERENCE NO.: 91:33981a,33984a
TITLE: Ergolin-8-ylalkylesters, -thioesters and -amides of prostanoic acids
INVENTOR(S): Wagner, Roland
PATENT ASSIGNEE(S): Sandoz-Patent-G.m.b.H., Switz.
SOURCE: Ger. Offen., 39 pp.

CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2803058	A1	19790726	DE 1978-2803058	19780125

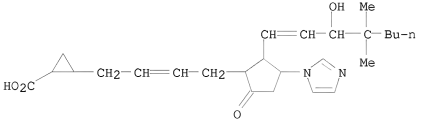
PRIORITY APPLN. INFO.: DE 1978-2803058 19780125
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

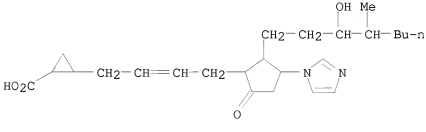
AB A number of title compds. (e.g., I) were prepared by coupling the prostaglandin and ergoline components. Addition of the appropriate heterocycle to PGA analogs gave the 11α-heterocyclylprostaglandins, in turn converted into title compound analogs, such as II. In all, .apprx.60 compds. and intermediates were prepared

IT 65428-29-7P 65428-30-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 65428-29-7 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(3-hydroxy-4,4-dimethyl-1-octen-1-yl)-3-(1H-imidazol-1-yl)-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)



RN 65428-30-0 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(3-hydroxy-4-methyloctyl)-3-(1H-imidazol-1-yl)-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)



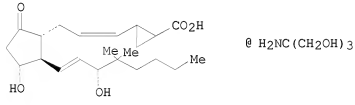
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L4 ANSWER 31 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1979:598940 CAPLUS

DOCUMENT NUMBER: 91:198940
ORIGINAL REFERENCE NO.: 91:31957a,31960a
TITLE: Prostaglandin-containing therapeutic composition
INVENTOR(S): Cavanak, Thomas
PATENT ASSIGNEE(S): Sandoz-Patent-G.m.b.H., Switz.
SOURCE: Ger. Offen., 13 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2900428	A1	19790719	DE 1979-2900428	19790108
DK 7900076	A	19790718	DK 1979-7679	19790108
FI 7900043	A	19790718	FI 1979-43	19790108
SE 7900124	A	19790718	SE 1979-124	19790108
NO 7900059	A	19790718	NO 1979-59	19790109
NL 7900255	A	19790719	NL 1979-255	19790112
BE 873481	A1	19790716	BE 1979-192900	19790115
AU 7943379	A	19790726	AU 1979-43379	19790115
DD 141260	A5	19800423	DD 1979-210477	19790115
FR 2414336	A1	19790810	FR 1979-1110	19790117
FR 2414336	B1	19810731		
JP 54110313	A	19790829	JP 1979-4430	19790117
ZA 7900199	A	19800827	ZA 1979-199	19790117
PRIORITY APPLN. INFO.:			CH 1978-463 A	19780117

OTHER SOURCE(S): MARPAT 91:198940
GI



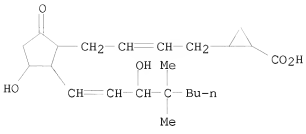
I

AB Compns. containing a prostaglandin and a starch hydrolyzate and/or an ester obtained from a triglyceride and a polyethylene glycol were prepared Thus, 100 mg Lycasine powder in 0.5 mL H2O was mixed with 1.305 mg I [71937-39-8] in 0.9 mL H2O and the mixture adjusted to pH 6. The mixture was freeze dried and used in tablets or capsules.

IT 57911-34-9 71937-39-8
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceuticals containing)

RN 57911-34-9 CAPLUS

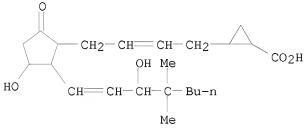
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octen-1-yl)-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)



RN 71937-39-8 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octen-1-yl)-5-oxocyclopentyl]-2-buten-1-yl]-, compd. with 2-amino-2-(hydroxymethyl)-1,3-propanediol (1:1) (CA INDEX NAME)

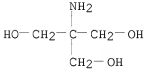
CM 1

CRN 57911-34-9
CMF C23 H36 O5



CM 2

CRN 77-86-1
CMF C4 H11 N O3



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L4 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1978:51072 CAPLUS
DOCUMENT NUMBER: 88:51072
ORIGINAL REFERENCE NO.: 88:8073a,8076a
TITLE: Ergolin-8-yl alkyl esters, thioesters, and amides of prostanoic acids
INVENTOR(S): Wenger, Roland
PATENT ASSIGNEE(S): Sandoz-Patent-G.m.b.H., Switz.
SOURCE: Ger. Offen., 39 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent

LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2707915	A1	19771117	DE 1977-2707915	19770224
DK 7700751	A	19771028	DK 1977-751	19770221
FI 7700572	A	19771028	FI 1977-572	19770222
GB 1577647	A	19801029	GB 1977-7981	19770225
ZA 7701215	A	19781025	ZA 1977-1215	19770301
NL 7702221	A	19771031	NL 1977-2221	19770302
BE 852055	A1	19770905	BE 1977-175449	19770303
JP 52131600	A	19771104	JP 1977-22259	19770303
FR 2353549	A1	19771230	FR 1977-6181	19770303
SU 741794	A3	19800615	SU 1977-2457126	19770303
FR 2355837	A1	19780120	FR 1977-26295	19770830

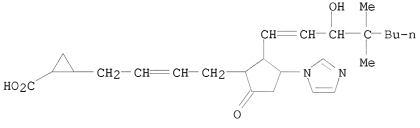
PRIORITY APPLN. INFO.: CH 1976-5268 A 19760427

AB Treatment of prostaglandin E1 with dihydroisolysergylamine gave 11α,15S-dihydroxy-9-oxo-13-trans-prostenoic acid dihydroisolysergylamide. Similarly prepared were 59 alkyl esters, thio esters, and other ergolinyl amides of prostenoic acids.

IT 65428-29-7P 65428-30-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

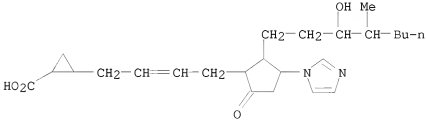
RN 65428-29-7 CAPLUS

CN Cyclopropanecarboxylic acid, 2-[4-[2-(3-hydroxy-4,4-dimethyl-1-octen-1-yl)-3-(1H-imidazol-1-yl)-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)



RN 65428-30-0 CAPLUS

CN Cyclopropanecarboxylic acid, 2-[4-[2-(3-hydroxy-4-methyloctyl)-3-(1H-imidazol-1-yl)-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)



L4 ANSWER 33 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1977:551761 CAPLUS
DOCUMENT NUMBER: 87:151761
ORIGINAL REFERENCE NO.: 87:23999a,24002a

TITLE: Prostaglandin derivatives
INVENTOR(S): Bollinger, Pietro
PATENT ASSIGNEE(S): Sandoz-Patent-G.m.b.H, Fed. Rep. Ger.
SOURCE: Ger. Offen., 10 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2654583	A1	19770616	DE 1976-2654583	19761202
GB 1565852	A	19800423	GB 1976-50954	19761207
NL 7613628	A	19770614	NL 1976-13628	19761208
FR 2334346	A2	19770708	FR 1976-37055	19761209
AU 7620438	A	19780615	AU 1976-20438	19761209
BE 849302	A4	19770610	BE 1976-173172	19761210
ZA 7607365	A	19780726	ZA 1976-7365	19761210
JP 52087148	A	19770720	JP 1976-148323	19761211
PRIORITY APPLN. INFO.:			CH 1975-16143 A	19751212
			US 1975-645546 A	19751231

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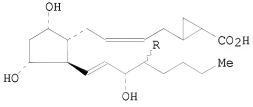


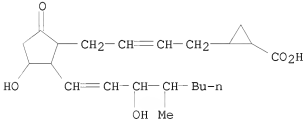
I

AB I [R = (R)- and (S)-Me throughout], their 9-oxo analogs, and their 9-oxo-11-deoxy-10,11-didehydro analogs were prepared by the methods of Ger. Offen. 2,431,930.

IT 64244-51-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 64244-51-5 CAPLUS

CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4-methyl-1-octen-1-yl)-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)

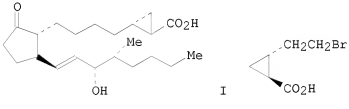


L4 ANSWER 34 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1977:422548 CAPLUS
DOCUMENT NUMBER: 87:22548
ORIGINAL REFERENCE NO.: 87:3553a,3556a

TITLE: Prostaglandins
INVENTOR(S): Bollinger, Pietro
PATENT ASSIGNEE(S): Sandoz-Patent G.m.b.H., Fed. Rep. Ger.
SOURCE: Ger. Offen., 44 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2638401	A1	19770317	DE 1976-2638401	19760826
DK 7603910	A	19770306	DK 1976-3910	19760827
FI 7602467	A	19770306	FI 1976-2467	19760827
SE 7609505	A	19770306	SE 1976-9505	19760827
NO 7602960	A	19770308	NO 1976-2960	19760827
NL 7609710	A	19770308	NL 1976-9710	19760901
GB 1554925	A	19791031	GB 1976-36369	19760902
BE 845870	A1	19770303	BE 1976-170371	19760903
ZA 7605299	A	19780426	ZA 1976-5299	19760903
JP 52033656	A	19770314	JP 1976-105447	19760904
FR 2322594	A1	19770401	FR 1976-26743	19760906
FR 2322594	B1	19790907		
PRIORITY APPLN. INFO.:			CH 1975-11593 A	19750905
			CH 1975-16281 A	19751216

GI



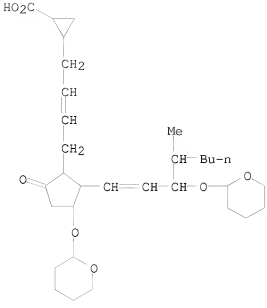
I II

AB A series of 95 2,3-methyleneprostaglandins (e.g., I) was prepared conventionally from building blocks such as (-)-II.

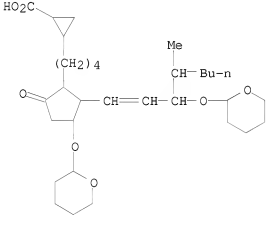
IT 63050-78-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrogenation of)

RN 63050-78-2 CAPLUS

CN Cyclopropanecarboxylic acid, 2-[4-[2-[4-methyl-3-[(tetrahydro-2H-pyran-2-yl)oxy]-1-octen-1-yl]-5-oxo-3-[(tetrahydro-2H-pyran-2-yl)oxy]cyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)

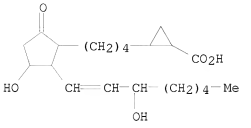


IT 63050-79-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
RN 63050-79-3 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-[4-methyl-3-[(tetrahydro-2H-pyran-2-yl)oxy]-1-octen-1-yl]-5-oxo-3-[(tetrahydro-2H-pyran-2-yl)oxy]cyclopentyl]butyl]- (CA INDEX NAME)

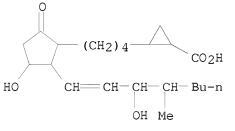


IT 58688-66-7P 63050-32-8P 63050-37-3P
63050-40-8P 63050-44-2P 63050-45-3P
63050-50-0P 63050-51-1P 63050-52-2P
63050-56-6P 63050-58-8P 63050-66-8P
63050-69-1P 63050-72-6P 63050-76-0P
63088-39-1P 63088-41-5P 63088-42-6P
63088-48-2P 63088-52-8P 63088-59-5P
63088-62-0P 63088-63-1P 63121-45-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 58688-66-7 CAPLUS

CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-1-octen-1-yl)-5-oxocyclopentyl]butyl]- (CA INDEX NAME)

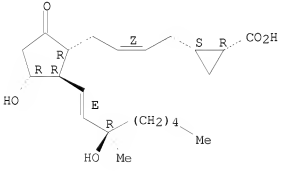


RN 63050-32-8 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4-methyl-1-octen-1-yl)-5-oxocyclopentyl]butyl]- (CA INDEX NAME)



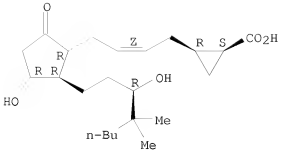
RN 63050-37-3 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-3-methyl-1-octenyl)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1R*,2S*)],2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



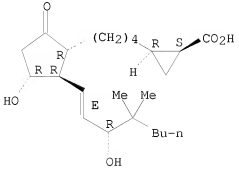
RN 63050-40-8 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyloctyl)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1S*,2R*)],2β(R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



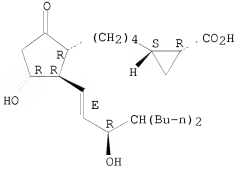
RN 63050-44-2 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octenyl)-5-oxocyclopentyl]butyl]-, [1R-[1α(1S*,2R*),2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



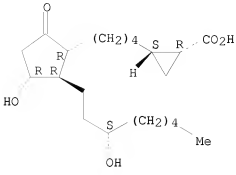
RN 63050-45-3 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(4-butyl-3-hydroxy-1-octenyl)-3-hydroxy-5-oxocyclopentyl]butyl]-, [1R-[1α(1R*,2S*),2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

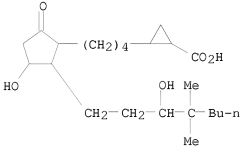


RN 63050-50-0 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxyoctyl)-5-oxocyclopentyl]butyl]-, [1R-[1α(1R*,2S*),2β(S*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

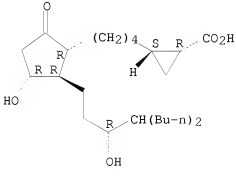


RN 63050-51-1 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyloctyl)-5-oxocyclopentyl]butyl]- (CA INDEX NAME)

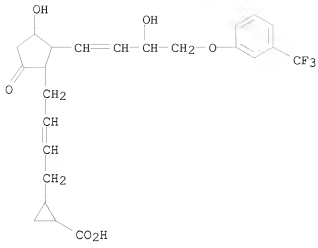


RN 63050-52-2 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(4-butyl-3-hydroxyoctyl)-3-hydroxy-5-oxocyclopentyl]butyl]-, [1R-[1α(1R*,2S*),2β(R*),3α]]-
(9CI) (CA INDEX NAME)

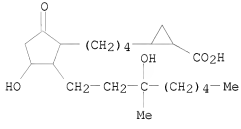
Absolute stereochemistry.



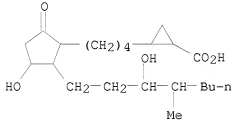
RN 63050-56-6 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-[3-hydroxy-4-[3-(trifluoromethyl)phenoxy]-1-buten-1-yl]-5-oxocyclopentyl]-2-buten-1-yl]-
(CA INDEX NAME)



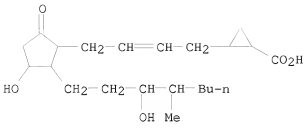
RN 63050-58-8 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-3-methyloctyl)-5-oxocyclopentyl]butyl]- (CA INDEX NAME)



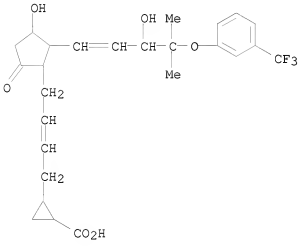
RN 63050-66-8 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4-methyloctyl)-5-oxocyclopentyl]butyl]- (CA INDEX NAME)



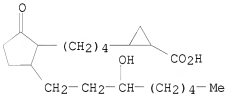
RN 63050-69-1 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4-methyloctyl)-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)



RN 63050-72-6 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-[3-hydroxy-4-methyl-4-[3-(trifluoromethyl)phenoxy]-1-penten-1-yl]-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)

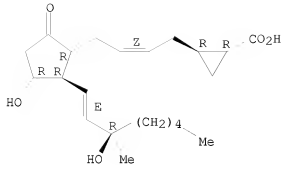


RN 63050-76-0 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(3-hydroxyoctyl)-5-oxocyclopentyl]butyl]- (CA INDEX NAME)



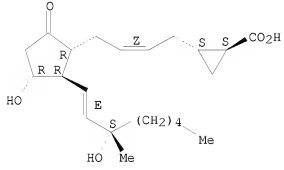
RN 63088-39-1 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-3-methyl-1-octenyl)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1R*,2R*)],2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



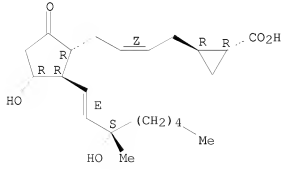
RN 63088-41-5 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-3-methyl-1-octenyl)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1S*,2S*)],2β(1E,3S*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 63088-42-6 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-3-methyl-1-octenyl)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1R*,2R*)],2β(1E,3S*),3α]]- (9CI) (CA INDEX NAME)

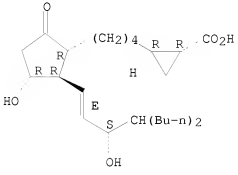
Absolute stereochemistry.
Double bond geometry as shown.



RN 63088-48-2 CAPLUS

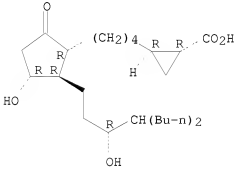
CN Cyclopropanecarboxylic acid, 2-[4-[2-(4-butyl-3-hydroxy-1-octenyl)-3-hydroxy-5-oxocyclopentyl]butyl]-, [1R-[1α(1R*,2R*),2β(1E,3S*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



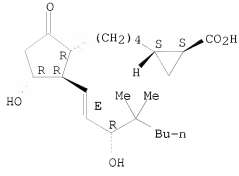
RN 63088-52-8 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(4-butyl-3-hydroxyoctyl)-3-hydroxy-5-oxocyclopentyl]butyl]-, [1R-[1α(1R*,2R*),2β(R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



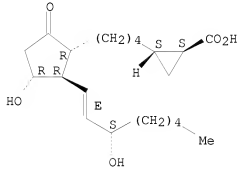
RN 63088-59-5 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octenyl)-5-oxocyclopentyl]butyl]-, [1R-[1α(1S*,2S*),2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



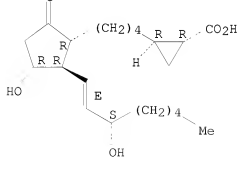
RN 63088-62-0 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-1-octenyl)-5-oxocyclopentyl]butyl]-, [1R-[1α(1S*,2S*),2β(1E,3S*),3α]]-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 63088-63-1 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-1-octenyl)-5-oxocyclopentyl]butyl]-, [1R-[1α(1R*,2R*),2β(1E,3S*),3α]]-
(9CI) (CA INDEX NAME)

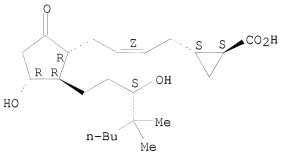
Absolute stereochemistry.
Double bond geometry as shown.



RN 63121-45-9 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyloctyl)-5-oxocyclopentyl]-2-butenyl]-,

[1R-[1α[Z(1S*,2S*)],2β(S*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L4 ANSWER 35 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1977:170946 CAPLUS
DOCUMENT NUMBER: 86:170946
ORIGINAL REFERENCE NO.: 86:26837a,26840a
TITLE: Prostaglandins containing a hydroxy group and a deuterium atom on the carbon atom in position 15
INVENTOR(S): Bollinger, Pietro; Krieger, Manfred
PATENT ASSIGNEE(S): Sandoz-Patent-G.m.b.H., Fed. Rep. Ger.
SOURCE: Ger. Offen., 37 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2626582	A1	19770303	DE 1976-2626582	19760614
DK 7602701	A	19761226	DK 1976-2701	19760616
FI 7601741	A	19761226	FI 1976-1741	19760616
SE 7606972	A	19761226	SE 1976-6972	19760617
NO 7602102	A	19761228	NO 1976-2102	19760617
NL 7606709	A	19761228	NL 1976-6709	19760621
GB 1560902	A	19800213	GB 1976-25886	19760622
BE 843318	A1	19761223	BE 1976-168237	19760623
FR 2316930	A1	19770204	FR 1976-19091	19760623
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DD 124727	A5	19770309	DD 1976-193532	19760623
IL 49889	A	19791130	IL 1976-49889	19760623
CA 1095032	A1	19810203	CA 1976-255572	19760623
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AT 7604604	A	19820115	AT 1976-4604	19760624
ZA 7603810	A	19780222	ZA 1976-3810	19760625
AU 511527	B2	19800821	AU 1976-15326	19760625
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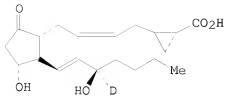

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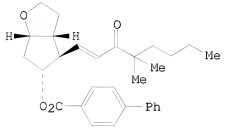


II

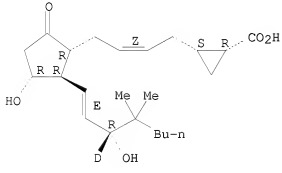
AB A series of deuterated prostaglandins, e.g., I, was prepared conventionally; the D was introduced by reduction of conventional intermediates, such as II, with Zn borodeuteride.

IT 62514-97-0P 62515-02-0P 62515-05-3P
62515-08-6P 62515-10-0P 62515-11-1P
62515-15-5P 62561-00-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 62514-97-0 CAPLUS

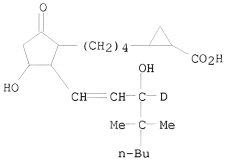
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octenyl-3-d)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1R*,2S*)],2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



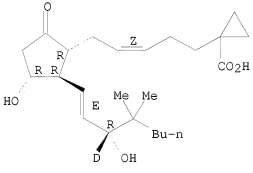
RN 62515-02-0 CAPLUS

CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octenyl-3-d)-5-oxocyclopentyl]butyl]- (9CI) (CA INDEX NAME)

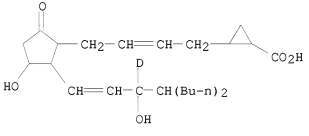


RN 62515-05-3 CAPLUS
CN Cyclopropanecarboxylic acid, 1-[5-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octenyl-3-d)-5-oxocyclopentyl]-3-pentenyl]-, [1R-[1α(Z),2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

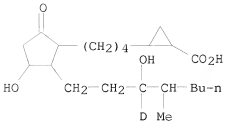
Absolute stereochemistry.
Double bond geometry as shown.



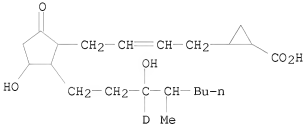
RN 62515-08-6 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[2-(4-butyl-3-hydroxy-1-octenyl-3-d)-3-hydroxy-5-oxocyclopentyl]-2-butenyl]- (9CI) (CA INDEX NAME)



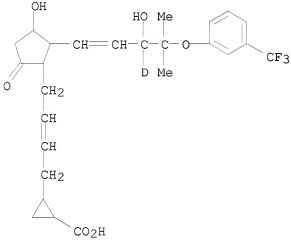
RN 62515-10-0 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4-methyloctyl-3-d)-5-oxocyclopentyl]butyl]- (9CI) (CA INDEX NAME)



RN 62515-11-1 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4-methyloctyl-3-d)-5-oxocyclopentyl]-2-butenyl]- (9CI) (CA INDEX NAME)

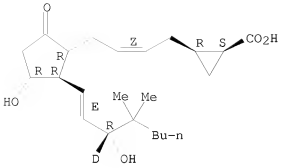


RN 62515-15-5 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-[3-hydroxy-4-methyl-4-[3-(trifluoromethyl)phenoxy]-1-pentenyl-3-d]-5-oxocyclopentyl]-2-butenyl]- (9CI) (CA INDEX NAME)



RN 62561-00-6 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octenyl-3-d)-5-oxocyclopentyl]-2-butenyl]-, [1R-[1α[Z(1S*,2R*)],2β(1E,3R*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

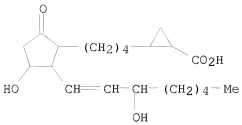


L4 ANSWER 36 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1976:117028 CAPLUS
DOCUMENT NUMBER: 84:117028
ORIGINAL REFERENCE NO.: 84:18973a,18976a
TITLE: Specificity in the enzymic conversion of substituted cis-8,cis-11,cis-14-eicosatrienoic acids into prostaglandins
AUTHOR(S): Van Dorp, D. A.; Christ, E. J.
CORPORATE SOURCE: Unilever Res., Vlaardingen, Neth.
SOURCE: Recueil des Travaux Chimiques des Pays-Bas (1975), 94(12), 247-53
CODEN: RTCPA3; ISSN: 0165-0513
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The enzyme specificity in the biosynthesis of prostaglandins was investigated by incubation of a particulate fraction of sheep vesicular glands with substituted cis-8,cis-11,cis-14-eicosatrienoic acids. Conversions were always lower than with the unsubstituted acid (20:3). In the 2-substituted series, a conversion of up to 50% was found for 2-methoxycarbonyl-, 2-methyl-, 2-hydroxymethyl-, 2-butyl-, 2-methoxy-, 2-methoxymethylene-, 2-fluoro-, 2-bromo-, 2-cyano-, and 2-phenyl-20:3. No conversion was found for 2-hydroxycarbonyl-, 2-heptoxycarbonyl-, 2-amino-, and 2-acetamido-20:3. In some cases, a slight preference of the enzymes for the R configuration (2-phenyl-, 2-methyl-20:3) was noted. For di-substituted acids, yields of up to 70% were found for 2-cyano-2-butyl, 2,3-cis- and 2,3-trans-methylene-, and 3,3-dimethyl-20:3, but 4,4-dimethyl-20:3 was not converted. However, 5-yne-20:3 was again a substrate (25% conversion). Substitution at the methyl end of the precursor acid resulted in 34% conversion with 19-methyl-20:3, but 18-methyl-20:3 was not converted. Biol. activities of substituted prostaglandins were, in general, much less than those of PGE1, but for 19-methyl-PGE, smooth muscle-stimulating activity was 1.6 times that of PGE1. For some substituted prostaglandins (2-fluoro-, 2-cyano-PGE1), an appreciable activity in one biol. test system was found but very little in others.

IT 58688-66-7P
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, by vesicular gland)

RN 58688-66-7 CAPLUS
CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-1-octen-1-yl)-5-oxocyclopentyl]butyl]- (CA INDEX NAME)



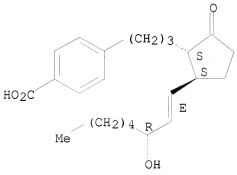
L4 ANSWER 37 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1975:458253 CAPLUS
DOCUMENT NUMBER: 83:58253
ORIGINAL REFERENCE NO.: 83:9179a,9182a
TITLE: Analogs of prostanoic acids
INVENTOR(S): Babej, Milo; Bartmann, Wilhelm; Lerch, Ulrich
PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 38 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2346706	A1	19750403	DE 1973-2346706	19730917
ZA 7405912	A	19751029	ZA 1974-5912	19740907
NL 7412117	A	19750319	NL 1974-12117	19740912
CH 609970	A5	19790330	CH 1974-12437	19740912
DK 7404874	A	19750520	DK 1974-4874	19740916
AU 7473333	A	19760318	AU 1974-73333	19740916
AU 502576	B2	19790802		
AT 7407466	A	19790715	AT 1974-7466	19740916
AT 355234	B	19800225		
HU 173876	B	19790928	HU 1974-HO1720	19740916
BE 820008	A1	19750317	BE 1974-148609	19740917
SE 7411664	A	19750318	SE 1974-11664	19740917
FR 2243689	A1	19750411	FR 1974-31396	19740917
FR 2243689	B1	19780630		
JP 50053352	A	19750512	JP 1974-107057	19740917
JP 58005195	B	19830129		
GB 1487842	A	19771005	GB 1974-40536	19740917

PRIORITY APPLN. INFO.: DE 1973-2346706 A 19730917
OTHER SOURCE(S): MARPAT 83:58253
GI For diagram(s), see printed CA Issue.
AB Prostaglandin analogs I [R = R3 = H (II); R1R2 = O; n = 0-5; Q = (CH2)m (m = 0-5) or cis or trans CR4:CR5 (R4 ≠ R5 = H, C1-5 alkyl); X = O or direct bond; Y = 2,5-furandiyl, phenylene, phenyleneoxy, or CR6R7 (R6, R7 = H, alkyl)] were prepared by conventional methods, e.g., protective-group procedures, isomer sepns., etc., based on retro-Dieckmann condensation of the corresponding I (R = CO2Et; R3 = CO2Et), which were hydrolyzed, then decarboxylated to II. II were optionally reduced by metal hydrides to the corresponding I (R1 = OH; R2 = H) (III). II and III showed a variety of physiol. activities characteristic of prostaglandins.
IT 56372-92-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 56372-92-0 CAPLUS

CN Benzoic acid, 4-[3-[(1R,2R)-2-[(1E,3S)-3-hydroxy-1-octen-1-yl]-5-oxocyclopentyl]propyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L4 ANSWER 38 OF 38 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1975:458248 CAPLUS
DOCUMENT NUMBER: 83:58248
ORIGINAL REFERENCE NO.: 83:9179a,9182a
TITLE: Methanoprostaglandins
INVENTOR(S): Bollinger, Pietro
PATENT ASSIGNEE(S): Sandoz Ltd.
SOURCE: Ger. Offen., 38 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2431930	A1	19750130	DE 1974-2431930	19740703
CH 599147	A5	19780512	CH 1973-9959	19730709
FI 7402011	A	19750110	FI 1974-2011	19740701
FI 58117	B	19800829		
FI 58117	C	19801210		
NO 7402378	A	19750110	NO 1974-2378	19740701
SE 7408689	A	19750110	SE 1974-8689	19740701
DK 7403529	A	19750303	DK 1974-3529	19740701
DK 142143	B	19800908		
DK 142143	C	19810209		
NL 7409119	A	19750113	NL 1974-9119	19740705
FR 2236490	A1	19750207	FR 1974-23427	19740705
DD 113348	A5	19750612	DD 1974-179745	19740705
BE 817383	A1	19750108	BE 1974-146337	19740708
JP 50040549	A	19750414	JP 1974-77462	19740708
AU 7470977	A	19760108	AU 1974-70977	19740708
GB 1479965	A	19770713	GB 1974-1901	19740708
GB 1479964	A	19770713	GB 1974-30268	19740708
CA 1050976	A1	19790320	CA 1974-204340	19740708
AT 7405598	A	19790715	AT 1974-5598	19740708
AT 355233	B	19800225		
ZA 7404410	A	19760331	ZA 1974-4410	19740709
DK 7504385	A	19750929	DK 1975-4385	19750929

SE 7512194	A	19751030	SE 1975-12194		19751030
FR 2318169	A1	19770211	FR 1976-29555		19761001
FR 2318169	B1	19781103			
PRIORITY APPLN. INFO.:			CH 1973-9959	A	19730709
			CH 1974-6049	A	19740504
			DK 1974-3529	A	19740701

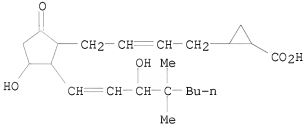
GI For diagram(s), see printed CA Issue.

AB Prostaglandin methano derivs. I (R = H, C1-8 alkyl, C3-10 cycloalkyl, aralkyl; R1, R2 = H, C1-4 alkyl) with unsatn., hydroxy, and oxo groups in the cyclopentane ring as shown, were prepared by several procedures based on Wittig reactions of II with cyclic hemiacetals III.

IT 57911-34-9P 57911-38-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

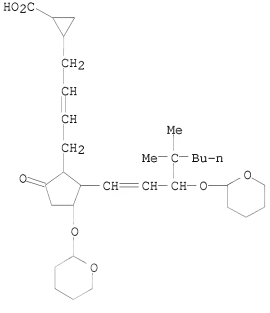
RN 57911-34-9 CAPLUS

CN Cyclopropanecarboxylic acid, 2-[4-[3-hydroxy-2-(3-hydroxy-4,4-dimethyl-1-octen-1-yl)-5-oxocyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)



RN 57911-38-3 CAPLUS

CN Cyclopropanecarboxylic acid, 2-[4-[2-[4,4-dimethyl-3-[(tetrahydro-2H-pyran-2-yl)oxy]-1-octen-1-yl]-5-oxo-3-[(tetrahydro-2H-pyran-2-yl)oxy]cyclopentyl]-2-buten-1-yl]- (CA INDEX NAME)



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NEWS 4	AUG 24	ENCOMPLIT/ENCOMPLIT2 reloaded and enhanced
NEWS 5	AUG 24	CA/CAplus enhanced with legal status information for U.S. patents
NEWS 6	SEP 09	50 Millionth Unique Chemical Substance Recorded in CAS REGISTRY
NEWS 7	SEP 11	WPIDS, WPINDEX, and WPIX now include Japanese FTERM thesaurus
NEWS 8	OCT 21	Derwent World Patents Index Coverage of Indian and Taiwanese Content Expanded
NEWS 9	OCT 21	Derwent World Patents Index enhanced with human translated claims for Chinese Applications and Utility Models
NEWS 10	NOV 23	Addition of SCAN format to selected STN databases
NEWS 11	NOV 23	Annual Reload of IFI Databases
NEWS 12	DEC 01	FRFULL Content and Search Enhancements
NEWS 13	DEC 01	DGENE, USGENE, and PCTGEN: new percent identity feature for sorting BLAST answer sets
NEWS 14	DEC 02	Derwent World Patent Index: Japanese FI-TERM thesaurus added
NEWS 15	DEC 02	PCTGEN enhanced with patent family and legal status display data from INPADOCDB
NEWS 16	DEC 02	USGENE: Enhanced coverage of bibliographic and sequence information

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http://www.cas.org/support/stngen/stndoc/properties.html

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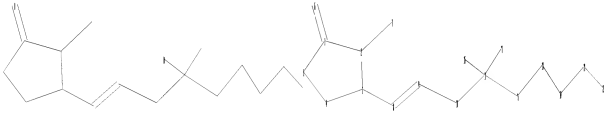

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ring nodes :
1 2 3 4 5
chain bonds :
1-6 2-7 3-8 8-9 9-10 10-11 11-15 11-16 11-17 15-18 18-19 19-20 20-21
ring bonds :
1-2 1-5 2-3 3-4 4-5
exact/norm bonds :
1-2 1-5 1-6 2-3 3-4 4-5 11-16
exact bonds :
2-7 3-8 8-9 9-10 10-11 11-15 11-17 15-18 18-19 19-20 20-21

G1:C,S

G2:C,N

G3:C,O

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS
21:CLASS

L1 STRUCTURE UPLOADED

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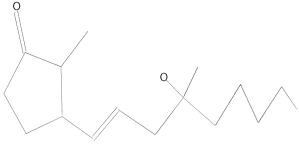
L1 STR



G1 C,S
G2 C,N
G3 C,O

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L2 5 SEA SSS SAM L1

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FULL SCREEN SEARCH COMPLETED - 8114 TO ITERATE

100.0% PROCESSED 8114 ITERATIONS 67 ANSWERS
SEARCH TIME: 00.00.01

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FILE LAST UPDATED: 13 Dec 2009 (20091213/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2009

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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L4 14 L3

=> s l3 and ep2
14 L3
1800 EP2
L5 2 L3 AND EP2

=> d ibib abs hitstr 1-2

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:1283410 CAPLUS
DOCUMENT NUMBER: 146:39069
TITLE: Agents for regeneration and/or protection of nerves containing prostaglandin EP2 receptor agonists
INVENTOR(S): Ohmoto, Kazuyuki; Kinoshita, Akihiro; Matsuya, Hidekazu
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 103pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006129788	A1	20061207	WO 2006-JP311084	20060602
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2006253356	A1	20061207	AU 2006-253356	20060602
CA 2610692	A1	20061207	CA 2006-2610692	20060602
EP 1886693	A1	20080213	EP 2006-756919	20060602
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ZA 2007010414	A	20081126	ZA 2007-10414	20071130
MX 2007015230	A	20080221	MX 2007-15230	20071203
NO 2007006232	A	20080228	NO 2007-6232	20071203
IN 2007CN05554	A	20080328	IN 2007-CN5554	20071203
US 20090227644	A1	20090910	US 2007-916374	20071203
KR 2008016926	A	20080222	KR 2008-700009	20080102
CN 101237885	A	20080806	CN 2006-80028685	20080203

PRIORITY APPLN. INFO.:	JP 2005-164458	A	20050603
	WO 2006-JP11084	W	20060602
	WO 2006-JP311084	W	20060602

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 146:39069

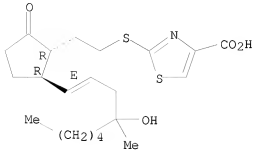
AB An EP2 agonist which may have an EP3 agonistic effect has an effect of regenerating and/or protecting nerves, and is therefore useful as a therapeutic agent for a disease of the peripheral nervous system, such as a lower or upper motor neuron disease, a nerve root disease, plexopathy, thoracic outlet compression syndrome, peripheral neuropathy, neurofibromatosis and neuromuscular transmission disease. An EP2 agonist which has an EP3 agonistic effect is a safe and effective agent for the regeneration and/or protection of nerves which has little influence on the circulatory system. For example 2-[[2-[(1R,2R)-2-[(1E,4S)-5-cyclohexyl-4-hydroxy-4-methyl-1-penten-1-yl]-5-oxocyclopentyl]ethyl]thio]-1,3-thiazole-4-carboxylic acid (I) was prepared, and examined for its effect on cauda equina repair-promoting effect in rats. Also, a tablet containing I 0.5 mg/tablet was formulated.

IT 853999-74-3P 916317-64-1P 916317-68-5P
916317-76-5P 916317-77-6P 916317-81-2P
916317-91-4P 916318-01-9P 916318-02-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(agents for regeneration and/or protection of nerves containing prostaglandin EP2 receptor agonists)

RN 853999-74-3 CAPLUS

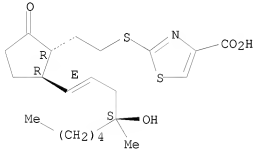
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



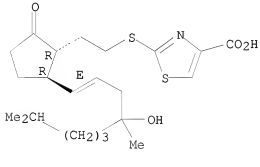
RN 916317-64-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



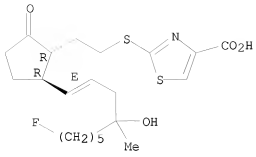
RN 916317-68-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4,8-dimethyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



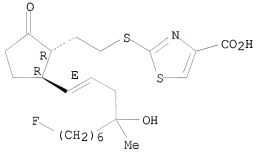
RN 916317-76-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-9-fluoro-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



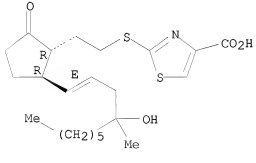
RN 916317-77-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-10-fluoro-4-hydroxy-4-methyl-1-decen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



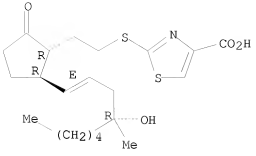
RN 916317-81-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-decen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



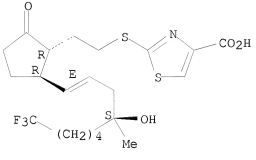
RN 916317-91-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4R)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



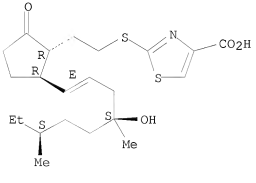
RN 916318-01-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,5R)-2-oxo-5-[(1E,4S)-9,9,9-trifluoro-4-hydroxy-4-methyl-1-nonen-1-yl]cyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 916318-02-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S,7S)-4-hydroxy-4,7-dimethyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:523298 CAPLUS
DOCUMENT NUMBER: 143:53530
TITLE: Blood flow promoters for cauda equina tissues

containing prostaglandin-like compounds
INVENTOR(S): Ohmoto, Kazuyuki; Kinoshita, Akihiro; Kamanaka, Yoshihisa; Matsuya, Hidekazu
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

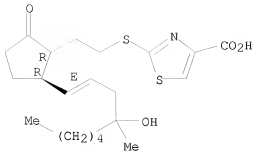
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005053707	A1	20050616	WO 2004-JP17961	20041202
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1707208	A1	20061004	EP 2004-819909	20041202
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
US 20070129327	A1	20070607	US 2007-581619	20070126
PRIORITY APPLN. INFO.:			JP 2003-407675 A	20031205
			WO 2004-JP17961 W	20041202

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 143:53530

AB It is intended to provide highly safe and efficacious blood flow promoters for cauda equina tissues. Among prostaglandin-like compds. having a weak hypotensive effect, compds. having an effect of promoting the blood flow in cauda equina tissues (excluding limaprost) are useful as highly safe blood flow promoters for cauda equina tissues and, therefore, are efficacious in preventing and/or treating lumbar pain, lower limb pain, lower limb palsy, intermittent claudication, vesicorectal failure, hypogonadism, etc. caused by cauda equina injuries. Thus, 2-[[2-[(4S)-4-[(1E,3R)-3-[1-(4-fluorobutyl)cyclobutyl]-3-hydroxy-1-propenyl]-2-oxo-1,3-oxazolidin-3-yl]ethyl]sulfanyl]-1,3-thiazole-4-carboxylic acid (I) was prepared The compound I improved blood flow of cauda equina in rats without significantly affecting blood pressure. Also, a tablet containing I 0.5 mg/tablet was formulated.

IT 853999-74-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(blood flow promoters for cauda equina tissues containing prostaglandin-like compds.)
RN 853999-74-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s l3
L6 14 L3

=> d ibib abs hitstr 1-14

L6 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:1283410 CAPLUS
DOCUMENT NUMBER: 146:39069
TITLE: Agents for regeneration and/or protection of nerves containing prostaglandin EP2 receptor agonists
INVENTOR(S): Ohmoto, Kazuyuki; Kinoshita, Akihiro; Matsuya, Hidekazu
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 103pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006129788	A1	20061207	WO 2006-JP311084	20060602
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2006253356	A1	20061207	AU 2006-253356	20060602
CA 2610692	A1	20061207	CA 2006-2610692	20060602
EP 1886693	A1	20080213	EP 2006-756919	20060602
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
ZA 2007010414	A	20081126	ZA 2007-10414	20071130
MX 2007015230	A	20080221	MX 2007-15230	20071203

NO 2007006232	A	20080228	NO 2007-6232		20071203
IN 2007CN05554	A	20080328	IN 2007-CN5554		20071203
US 20090227644	A1	20090910	US 2007-916374		20071203
KR 2008016926	A	20080222	KR 2008-700009		20080102
CN 101237885	A	20080806	CN 2006-80028685		20080203
PRIORITY APPLN. INFO.:			JP 2005-164458	A	20050603
			WO 2006-JP311084	W	20060602

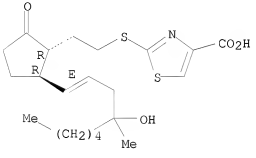
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 146:39069

AB An EP2 agonist which may have an EP3 agonistic effect has an effect of regenerating and/or protecting nerves, and is therefore useful as a therapeutic agent for a disease of the peripheral nervous system, such as a lower or upper motor neuron disease, a nerve root disease, plexopathy, thoracic outlet compression syndrome, peripheral neuropathy, neurofibromatosis and neuromuscular transmission disease. An EP2 agonist which has an EP3 agonistic effect is a safe and effective agent for the regeneration and/or protection of nerves which has little influence on the circulatory system. For example 2-[[2-[(1R,2R)-2-[(1E,4S)-5-cyclohexyl-4-hydroxy-4-methyl-1-penten-1-yl]-5-oxocyclopentyl]ethyl]thio]-1,3-thiazole-4-carboxylic acid (I) was prepared, and examined for its effect on cauda equina repair-promoting effect in rats. Also, a tablet containing I 0.5 mg/tablet was formulated.

IT 853999-74-3P 916317-64-1P 916317-68-5P
916317-76-5P 916317-77-6P 916317-81-2P
916317-91-4P 916318-01-9P 916318-02-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(agents for regeneration and/or protection of nerves containing prostaglandin EP2 receptor agonists)

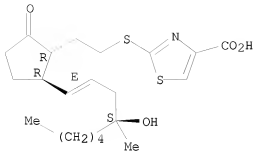
RN 853999-74-3 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



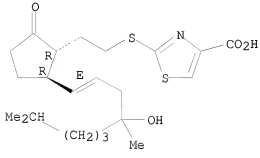
RN 916317-64-1 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



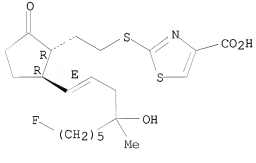
RN 916317-68-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4,8-dimethyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



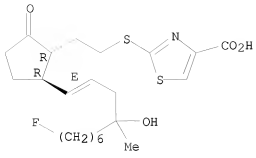
RN 916317-76-5 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-9-fluoro-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



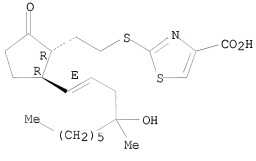
RN 916317-77-6 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-10-fluoro-4-hydroxy-4-methyl-1-decen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



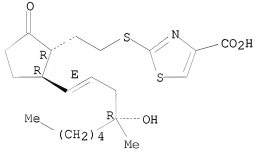
RN 916317-81-2 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-decen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



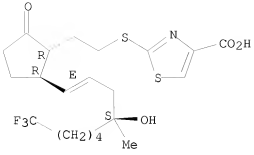
RN 916317-91-4 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4R)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



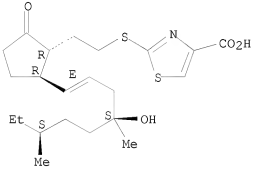
RN 916318-01-9 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,5R)-2-oxo-5-[(1E,4S)-9,9,9-trifluoro-4-hydroxy-4-methyl-1-nonen-1-yl]cyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 916318-02-0 CAPLUS
CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E,4S,7S)-4-hydroxy-4,7-dimethyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:523298 CAPLUS
DOCUMENT NUMBER: 143:53530
TITLE: Blood flow promoters for cauda equina tissues containing prostaglandin-like compounds
INVENTOR(S): Ohmoto, Kazuyuki; Kinoshita, Akihiro; Kamanaka, Yoshihisa; Matsuya, Hidekazu
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005053707	A1	20050616	WO 2004-JP17961	20041202

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1707208 A1 20061004 EP 2004-819909 20041202

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS

US 20070129327 A1 20070607 US 2007-581619 20070126

PRIORITY APPLN. INFO.: JP 2003-407675 A 20031205

WO 2004-JP17961 W 20041202

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 143:53530

AB It is intended to provide highly safe and efficacious blood flow promoters for cauda equina tissues. Among prostaglandin-like compds. having a weak hypotensive effect, compds. having an effect of promoting the blood flow in cauda equina tissues (excluding limaprost) are useful as highly safe blood flow promoters for cauda equina tissues and, therefore, are efficacious in preventing and/or treating lumbar pain, lower limb pain, lower limb palsy, intermittent claudication, vesicorectal failure, hypogonadism, etc. caused by cauda equina injuries. Thus, 2-[[2-[(4S)-4-[(1E,3R)-3-[1-(4-fluorobutyl)cyclobutyl]-3-hydroxy-1-propenyl]-2-oxo-1,3-oxazolidin-3-yl]ethyl]sulfanyl]-1,3-thiazole-4-carboxylic acid (I) was prepared The compound I improved blood flow of cauda equina in rats without significantly affecting blood pressure. Also, a tablet containing I 0.5 mg/tablet was formulated.

IT 853999-74-3P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

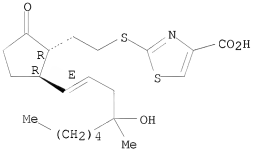
(blood flow promoters for cauda equina tissues containing prostaglandin-like compds.)

RN 853999-74-3 CAPLUS

CN 4-Thiazolecarboxylic acid, 2-[[2-[(1R,2R)-2-[(1E)-4-hydroxy-4-methyl-1-nonen-1-yl]-5-oxocyclopentyl]ethyl]thio]- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1992:627085 CAPLUS

DOCUMENT NUMBER: 117:227085

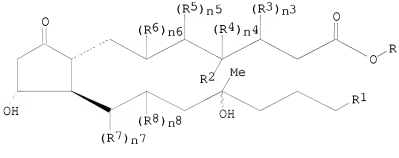
ORIGINAL REFERENCE NO.: 117:39081a,39082a

TITLE: Inhibition of IgE production with prostaglandins

INVENTOR(S): Levine, Alan David; Collins, Paul Waddell
PATENT ASSIGNEE(S): Monsanto Co., USA; G.D. Searle and Co.
SOURCE: Eur. Pat. Appl., 30 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 494063	A2	19920708	EP 1991-870214	19911220
EP 494063	A3	19920916		
R: AT, BE, CH, DE, DK, FR, GB, IT, LI, LU, NL, SE				
US 5157052	A	19921020	US 1990-635000	19901227
CA 2058457	A1	19920628	CA 1991-2058457	19911224
AU 9190035	A	19920702	AU 1991-90035	19911224
AU 643104	B2	19931104		
JP 05221865	A	19930831	JP 1991-345103	19911226
ZA 9110170	A	19930506	ZA 1991-10170	19911227
US 5218139	A	19930608	US 1992-892870	19920603

PRIORITY APPLN. INFO.: US 1990-635000 A 19901227
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 117:227085
GI

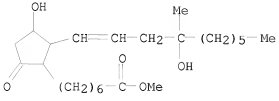


I

AB IgE formation is inhibited in humans by administration of prostaglandins I [R = H, C1-5 alkyl, C3-8 cycloalkyl, (un)substituted Ph; R1, R2 = H, C1-5 alkyl; n3-n8 = 0, 1; when n's = 0, R3R4, R4R5, R5R6, or R7R8 = double bond; when n's = 1, R3, R5-R8 = H and R4 = H, Me, or R3R4, R4R5, or R5R6 = CH2]. I are useful for treatment of allergies and asthma. Thus, mice were preinjected with antibody FF1-4D5 (a mouse IgG2a monoclonal antibody that binds the Fd fragment of the δ chain of IgD a allotype) and antibody HδA1 (a mouse IgG2b monoclonal antibody that binds the Fc fragment of the δ chain of IgD a allotype) to induce a transient IgE response and then treated i.p. with (±)-Me 11α,16-dihydroxy-16-methyl-9-oxoprosta-5Z,13E-dien-1-oate (II). II dose-dependently decreased the serum IgE levels of the treated mice, e.g. by 62% at 2 μg; a dose of 20-40 μg was sufficient to keep IgE production at normal levels. (±)-Me 2-[2-[(3R)-3α-hydroxy-2β-(4-hydroxy-4-methyl-1E-octenyl)-5-oxo-1α-cyclopentyl]ethyl]cyclopropanepropanoate was prepared from cis-5-(3-cis-heptenyl)-3-hydroxycyclopent-4-en-1-one by tert-butyldimethylsilylation, reaction with Et2Zn and CH2I2 to convert the heptenyl double bond to a cyclopropylene group, etc.

IT 144286-58-8

RL: BIOL (Biological study)
(IgE formation inhibition by)
RN 144286-58-8 CAPLUS
CN Cyclopentaneheptanoic acid, 3-hydroxy-2-(4-hydroxy-4-methyl-1-decenyl)-5-oxo-, methyl ester (9CI) (CA INDEX NAME)

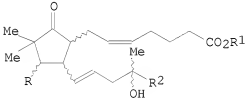


OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

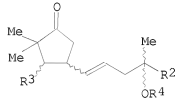
L6 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1985:453855 CAPLUS
DOCUMENT NUMBER: 103:53855
ORIGINAL REFERENCE NO.: 103:8669a,8672a
TITLE: 16-Hydroxyprostanoic acid derivatives
PATENT ASSIGNEE(S): Nihon Iyakuhin Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59170064	A	19840926	JP 1983-44318	19830318

PRIORITY APPLN. INFO.: JP 1983-44318 19830318
GI



I



II

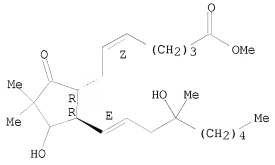
AB Nine 16-hydroxyprostanoic acid derivs. (I, R = H, OH; R1 = H, alkyl; R2 = Bu pentyl) were prepared by reaction of the cyclopentanones II (R3 = H, protected OH; R4 = OH-protecting groups) with cis-ICH2CH:CH(CH2)3CO2R1 (III) followed by deprotection. I had anti-ulcer activity with LD50's >700 mg/kg p.o. in mice. Thus, reaction of 906 mg III (R1 = Me) with 740 mg II (R2 = Bu, R3 = tetrahydropyranyloxy, R4 = tetrahydropyranyl) in THF containing (Me2CH)2NH and BuLi/hexane at -10° to -30° for 4 h gave 460 mg a bis[(tetrahydropyranyl)oxy]prostadienoate, which (450 mg) ws treated with AcOH-THF-H2O at room temperature for 24 h and at 41-46° for 4 h to give 195 mg I (R = OH, R1 = Me, R2 = Bu).
IT 96925-41-6P 96925-42-7P 96925-45-0P
96925-46-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and antiulcer activity of)

RN 96925-41-6 CAPLUS

CN 5-Heptenoic acid, 7-[(1R,5R)-4-hydroxy-5-[(1E)-4-hydroxy-4-methyl-1-nonenyl]-3,3-dimethyl-2-oxocyclopentyl]-, methyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

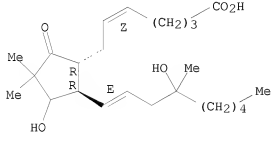
Relative stereochemistry.
Double bond geometry as shown.



RN 96925-42-7 CAPLUS

CN 5-Heptenoic acid, 7-[(1R,5R)-4-hydroxy-5-[(1E)-4-hydroxy-4-methyl-1-nonenyl]-3,3-dimethyl-2-oxocyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

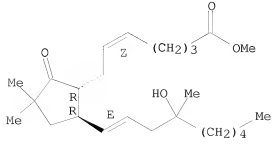
Relative stereochemistry.
Double bond geometry as shown.



RN 96925-45-0 CAPLUS

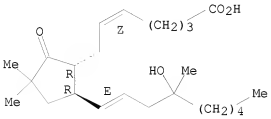
CN 5-Heptenoic acid, 7-[(1R,5R)-5-[(1E)-4-hydroxy-4-methyl-1-nonenyl]-3,3-dimethyl-2-oxocyclopentyl]-, methyl ester, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



RN 96925-46-1 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,5R)-5-[(1E)-4-hydroxy-4-methyl-1-nonenyl]-3,3-dimethyl-2-oxocyclopentyl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



L6 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1981:442475 CAPLUS
DOCUMENT NUMBER: 95:42475
ORIGINAL REFERENCE NO.: 95:7265a,7268a
TITLE: 1-Hydroxymethyl-1-1-oxoprostane derivatives of the E and F series
INVENTOR(S): Wissner, Allan
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: U.S., 110 pp. Cont.-in-part of U.S. Ser. No. 961,032.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4254285	A	19810303	US 1979-3953	19790116
US 4170597	A	19791009	US 1977-858588	19771208
US 4172839	A	19791030	US 1977-858504	19771208
US 4197245	A	19800408	US 1977-858580	19771208
US 4202822	A	19800513	US 1977-858589	19771208
US 4212969	A	19800715	US 1977-858579	19771208
ZA 7806599	A	19790926	ZA 1978-6599	19781123
SU 1001854	A3	19830228	SU 1978-2696152	19781208
US 4235797	A	19801125	US 1979-30863	19790417
US 4254036	A	19810303	US 1979-46722	19790607
US 4297516	A	19811027	US 1979-46721	19790607
JP 55113759	A	19800902	JP 1980-2234	19800114
EP 15056	A1	19800903	EP 1980-300146	19800116
R: BE, CH, DE, FR, GB, IT, NL, SE				
CA 1158658	A2	19831213	CA 1983-420882	19830203

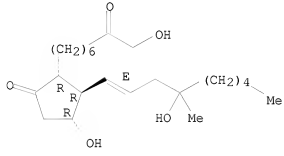
PRIORITY APPLN. INFO.:

US 1977-858487	A2	19771208
US 1977-858504	A2	19771208
US 1977-858579	A2	19771208
US 1977-858580	A2	19771208
US 1977-858588	A2	19771208
US 1977-858589	A2	19771208
US 1978-961032	A2	19781115
CA 1978-316200	A3	19781114
US 1979-3953	A2	19790116
US 1979-46722	A	19790607

OTHER SOURCE(S): CASREACT 95:42475
AB A series of known title compds. was prepared conventionally; .apprx.25 new

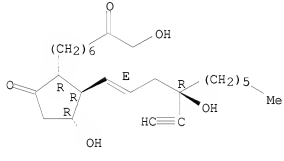
compds. were claimed.
IT 78169-27-4P 78169-30-9P 78169-31-0P
78169-34-3P 78215-37-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 78169-27-4 CAPLUS
CN Cyclopentanone, 4-hydroxy-3-[(1E)-4-hydroxy-4-methyl-1-nonenyl]-2-(8-hydroxy-7-oxooctyl)-, (2R,3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



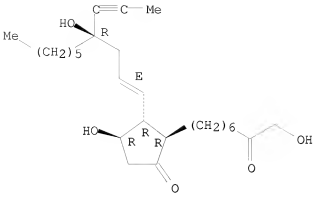
RN 78169-30-9 CAPLUS
CN Cyclopentanone, 3-(4-ethynyl-4-hydroxy-1-decenyl)-4-hydroxy-2-(8-hydroxy-7-oxooctyl)-, [2R-[2α,3β(1E,4R*),4α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



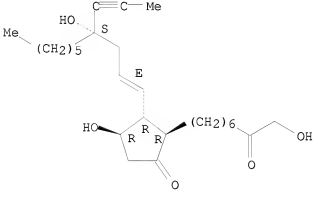
RN 78169-31-0 CAPLUS
CN Cyclopentanone, 4-hydroxy-2-(8-hydroxy-7-oxooctyl)-3-[4-hydroxy-4-(1-propynyl)-1-decenyl]-, [2R-[2α,3β(1E,4R*),4α]]- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



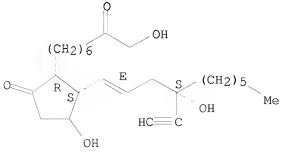
RN 78169-34-3 CAPLUS
CN Cyclopentanone, 4-hydroxy-2-(8-hydroxy-7-oxooctyl)-3-[4-hydroxy-4-(1-propynyl)-1-decenyl]-, [2R-[2α,3β(1E,4S*),4α]]- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 78215-37-9 CAPLUS
CN Cyclopentanone, 3-(4-ethynyl-4-hydroxy-1-decenyl)-4-hydroxy-2-(8-hydroxy-7-oxooctyl)-, [2R-[2α,3β(1E,4S*),3α]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

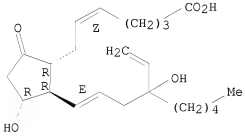
L6 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1981:156410 CAPLUS
DOCUMENT NUMBER: 94:156410
ORIGINAL REFERENCE NO.: 94:25561a,25564a
TITLE: Prostanoic acid esters and pharmaceutical compositions containing them
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: Neth. Appl., 66 pp.
CODEN: NAXXAN
DOCUMENT TYPE: Patent
LANGUAGE: Dutch
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 7903227	A	19801028	NL 1979-3227	19790424
PRIORITY APPLN. INFO.:			NL 1979-3227	19790424

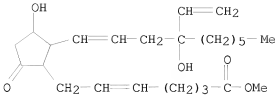
AB A series of known 16-alkyl-(esp 16-vinyl-) -16-hydroxy prostaglandins was prepared conventionally as bronchodilators (some test data given).

IT 73626-93-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and bronchodilatory activity of)
RN 73626-93-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxocyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

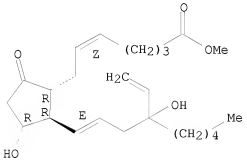


IT 73621-93-9P 73621-94-0P 73626-69-4P
73626-72-9P 73626-73-0P 73626-75-2P
73626-78-5P 73626-79-6P 73626-82-1P
73626-83-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 73621-93-9 CAPLUS
CN 5-Heptenoic acid, 7-[2-(4-ethenyl-4-hydroxy-1-decenyl)-3-hydroxy-5-oxocyclopentyl]-, methyl ester (9CI) (CA INDEX NAME)



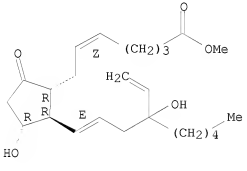
RN 73621-94-0 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxocyclopentyl]-, methyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



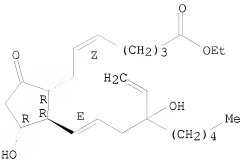
RN 73626-69-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxocyclopentyl]-, methyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

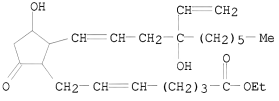


RN 73626-72-9 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxocyclopentyl]-, ethyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

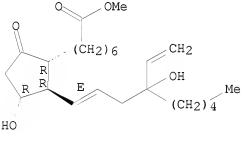


RN 73626-73-0 CAPLUS
CN 5-Heptenoic acid, 7-[2-(4-ethenyl-4-hydroxy-1-decenyl)-3-hydroxy-5-oxocyclopentyl]-, ethyl ester (9CI) (CA INDEX NAME)



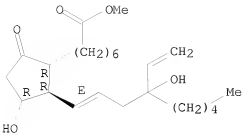
RN 73626-75-2 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxo-, methyl ester, (1R,2R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

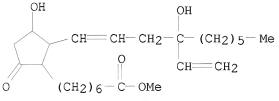


RN 73626-78-5 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxo-, methyl ester, (1R,2R,3R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

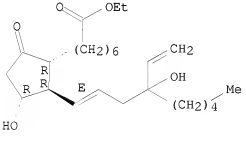


RN 73626-79-6 CAPLUS
CN Cyclopentaneheptanoic acid, 2-(4-ethenyl-4-hydroxy-1-decenyl)-3-hydroxy-5-oxo-, methyl ester (9CI) (CA INDEX NAME)

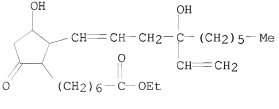


RN 73626-82-1 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxo-, ethyl ester, (1R,2R,3R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



RN 73626-83-2 CAPLUS
CN Cyclopentaneheptanoic acid, 2-(4-ethenyl-4-hydroxy-1-decenyl)-3-hydroxy-5-oxo-, ethyl ester (9CI) (CA INDEX NAME)



L6 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1980:520420 CAPLUS
DOCUMENT NUMBER: 93:120420

ORIGINAL REFERENCE NO.: 93:19131a,19134a
TITLE: Pharmaceutical compositions for topical administration containing prostaglandins
INVENTOR(S): Birnbaum, Jay Edward
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: Eur. Pat. Appl., 68 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

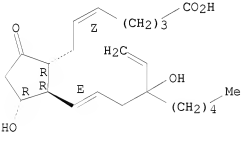
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 8227	A1	19800220	EP 1979-301602	19790807
EP 8227	B1	19830427		
R: BE, CH, DE, FR, GB, NL				
US 4254145	A	19810303	US 1978-934199	19780816
ZA 7902935	A	19800625	ZA 1979-2935	19790613
CA 1134270	A1	19821026	CA 1979-330510	19790625
AU 7949171	A	19800221	AU 1979-49171	19790724
AU 530454	B2	19830714		
JP 55036494	A	19800314	JP 1979-104515	19790816
PRIORITY APPLN. INFO.:			US 1978-934199 A	19780816
OTHER SOURCE(S):	MARPAT 93:120420			

AB Topical compns. containing prostaglandins have vasodilating activity and are used to treat peripheral vascular diseases. The compns. have a longer duration of activity than prostaglandins administered orally or parenterally. All-rac-15-deoxy-16-hydroxy-16-vinyl-PGE2 [74608-67-6] and 1-PGE2 [363-24-6] in aquation base in 0.3 and 1.0% concns. showed lowering of mean arterial blood pressure in spontaneously hypertensive rats when applied topically.

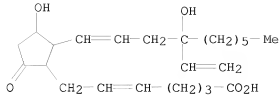
IT 73626-93-4 74531-81-0
RL: BIOL (Biological study)
(topical pharmaceutical containing, as vasodilator)

RN 73626-93-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxocyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 74531-81-0 CAPLUS
CN 5-Heptenoic acid, 7-[2-(4-ethenyl-4-hydroxy-1-decenyl)-3-hydroxy-5-oxocyclopentyl]- (9CI) (CA INDEX NAME)

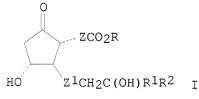


OS.CITING REF COUNT: 23 THERE ARE 23 CAPLUS RECORDS THAT CITE THIS RECORD (23 CITINGS)

L6 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1980:214968 CAPLUS
DOCUMENT NUMBER: 92:214968
ORIGINAL REFERENCE NO.: 92:34811a,34814a
TITLE: Novel prostaglandin compounds
INVENTOR(S): Floyd, Middleton Brawner; Weiss, Martin Joseph; Grudzinskas, Charles Vincent; Chen, Sow-Mei Lai
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: Brit. UK Pat. Appl., 29 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
GB 2009173	A	19790613	GB 1978-46615		19781130
US 4198521	A	19800415	US 1977-857715		19771205
US 4429148	A	19840131	US 1981-305901		19810925
PRIORITY APPLN. INFO.:			US 1977-857715	A	19771205
			US 1978-888183	A	19780320
			US 1976-706343	A2	19760719
			US 1979-79126	A3	19790926

GI



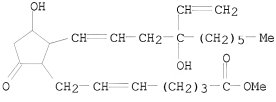
AB The prostaglandins I [Z = CH2, cis-CH2CH:CH(CH2)3; R = Me, Et; Z1 = CH:CH, trans-vinylene; R1 = vinyl, cyclopropyl; R2 = C2-7 alkyl], as optically active compds. or racemates, were prepared Thus, 9-oxo-11α,16-dihydroxy-16-vinyl-13-trans-prostenoic acid was prepared from 4-hydroxy-1-octyne by sequential treatment with Me3SiCl, bis(3-methyl-2-butyl)borane, iodine, AcOH, pyridinium chlorochromate, CH2:CHMgCl, Me3SiCl, BuLi, PrC.tplbond.CCu, 4-(trimethylsiloxy)-2-(6-carbotrimethylsiloxyhexyl)cyclopent-2-en-1-one, and AcOH. I are useful for the treatment of burns and as nasal decongestants, gastric secretion inhibitors, ulcer inhibitors, platelet aggregation inhibitors, smooth muscle stimulants, antihypertensives, labor inducing agents, reproductive cycle control agents, and bronchodilators for the treatment of asthma and chronic bronchitis. Bronchodilator

activity was determined in guinea pigs by Konzett assay.

IT 73621-93-9P 73621-94-0P 73626-69-4P
73626-72-9P 73626-73-0P 73626-75-2P
73626-78-5P 73626-79-6P 73626-82-1P
73626-83-2P 73626-93-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as bronchodilator)

RN 73621-93-9 CAPLUS

CN 5-Heptenoic acid, 7-[2-(4-ethenyl-4-hydroxy-1-decenyl)-3-hydroxy-5-oxocyclopentyl]-, methyl ester (9CI) (CA INDEX NAME)

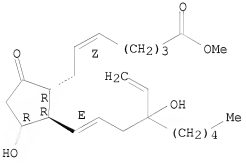


RN 73621-94-0 CAPLUS

CN 5-Heptenoic acid, 7-[(1R,2R,3R)-2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxocyclopentyl]-, methyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

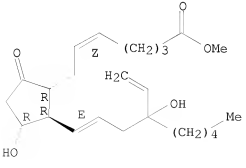


RN 73626-69-4 CAPLUS

CN 5-Heptenoic acid, 7-[(1R,2R,3R)-2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxocyclopentyl]-, methyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

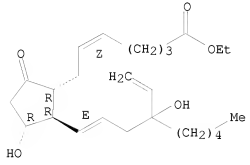
Double bond geometry as shown.



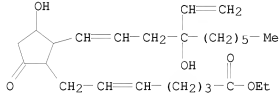
RN 73626-72-9 CAPLUS

CN 5-Heptenoic acid, 7-[(1R,2R,3R)-2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxocyclopentyl]-, ethyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

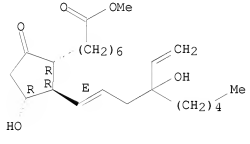


RN 73626-73-0 CAPLUS
CN 5-Heptenoic acid, 7-[2-(4-ethenyl-4-hydroxy-1-decenyl)-3-hydroxy-5-oxocyclopentyl]-, ethyl ester (9CI) (CA INDEX NAME)



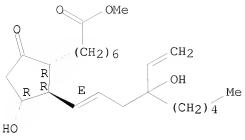
RN 73626-75-2 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxo-, methyl ester, (1R,2R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

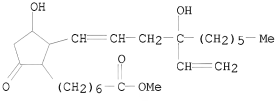


RN 73626-78-5 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxo-, methyl ester, (1R,2R,3R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

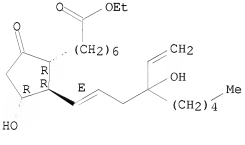


RN 73626-79-6 CAPLUS
CN Cyclopentaneheptanoic acid, 2-(4-ethenyl-4-hydroxy-1-decenyl)-3-hydroxy-5-oxo-, methyl ester (9CI) (CA INDEX NAME)

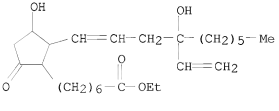


RN 73626-82-1 CAPLUS
CN Cyclopentaneheptanoic acid, 2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxo-, ethyl ester, (1R,2R,3R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

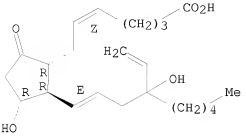


RN 73626-83-2 CAPLUS
CN Cyclopentaneheptanoic acid, 2-(4-ethenyl-4-hydroxy-1-decenyl)-3-hydroxy-5-oxo-, ethyl ester (9CI) (CA INDEX NAME)



RN 73626-93-4 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-2-[(1E)-4-ethenyl-4-hydroxy-1-nonenyl]-3-hydroxy-5-oxocyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

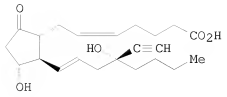
Absolute stereochemistry.
Double bond geometry as shown.



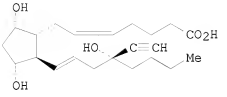
L6 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1979:507716 CAPLUS
DOCUMENT NUMBER: 91:107716
ORIGINAL REFERENCE NO.: 91:17379a,17382a
TITLE: Prostanoic acid and its derivatives
INVENTOR(S): Floyd, Middleton Brawner, Jr.; Gurdzinskas, Charles Vincent; Chen, Sow-Mei Lai; Weiss, Martin Joseph
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: Ger. Offen., 112 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2852318	A1	19790607	DE 1978-2852318	19781204
US 4190596	A	19800226	US 1977-857848	19771205
US 4190597	A	19800226	US 1977-857849	19771205
US 4191699	A	19800304	US 1977-857714	19771205
GB 2009162	A	19790613	GB 1978-46614	19781130
BE 872533	A1	19790605	BE 1978-192145	19781205
NL 7811889	A	19790607	NL 1978-11889	19781205
AU 7842207	A	19790614	AU 1978-42207	19781205
JP 54084552	A	19790705	JP 1978-150497	19781205
FR 2412527	A1	19790720	FR 1978-34249	19781205
US 4429148	A	19840131	US 1981-305901	19810925
PRIORITY APPLN. INFO.:			US 1977-857714 A	19771205
			US 1977-857848 A	19771205
			US 1977-857849 A	19771205
			US 1976-706343 A2	19760719
			US 1979-79126 A3	19790926

OTHER SOURCE(S): MARPAT 91:107716
GI



I



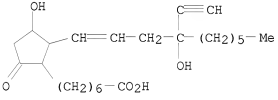
II

AB Some 16-ethynyl-16-hydroxy-15-deoxy-PGE and -PGF analogs, e.g., I and II, were prepared by appropriate modifications of conventional syntheses. The compds. had bronchodilator activity.

IT 71098-18-5P 71098-19-6P 71098-20-9P
71098-22-1P 71098-23-2P 71098-24-3P
71156-18-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

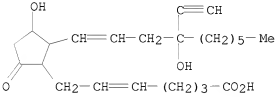
RN 71098-18-5 CAPLUS

CN Cyclopentaneheptanoic acid, 2-(4-ethynyl-4-hydroxy-1-decenyl)-3-hydroxy-5-oxo- (9CI) (CA INDEX NAME)



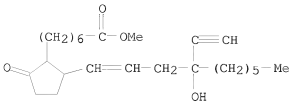
RN 71098-19-6 CAPLUS

CN 5-Heptenoic acid, 7-[2-(4-ethynyl-4-hydroxy-1-decenyl)-3-hydroxy-5-oxocyclopentyl]- (9CI) (CA INDEX NAME)

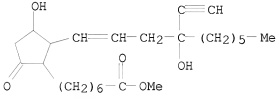


RN 71098-20-9 CAPLUS

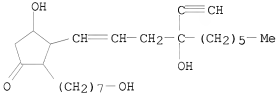
CN Cyclopentaneheptanoic acid, 2-(4-ethynyl-4-hydroxy-1-decenyl)-5-oxo-, methyl ester (9CI) (CA INDEX NAME)



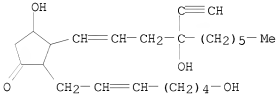
RN 71098-22-1 CAPLUS
CN Cyclopentaneheptanoic acid, 2-(4-ethynyl-4-hydroxy-1-decenyl)-3-hydroxy-5-oxo-, methyl ester (9CI) (CA INDEX NAME)



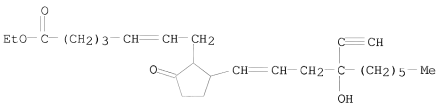
RN 71098-23-2 CAPLUS
CN Cyclopentanone, 3-(4-ethynyl-4-hydroxy-1-decenyl)-4-hydroxy-2-(7-hydroxyheptyl)- (9CI) (CA INDEX NAME)



RN 71098-24-3 CAPLUS
CN Cyclopentanone, 3-(4-ethynyl-4-hydroxy-1-decenyl)-4-hydroxy-2-(7-hydroxy-2-heptenyl)- (9CI) (CA INDEX NAME)

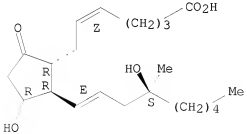


RN 71156-18-8 CAPLUS
CN 5-Heptenoic acid, 7-[2-(4-ethynyl-4-hydroxy-1-decenyl)-5-oxocyclopentyl]-, ethyl ester (9CI) (CA INDEX NAME)



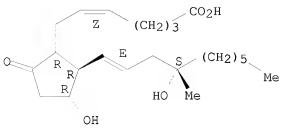
L6 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1979:491212 CAPLUS
DOCUMENT NUMBER: 91:91212
ORIGINAL REFERENCE NO.: 91:14727a,14730a
TITLE: 15-Deoxy-16-hydroxyprostaglandins synthesis and bronchodilator activity
AUTHOR(S): Grudzinskas, C. V.; Chen, S. M. L.; Floyd, M. B.; Lenhard, R. H.; Schaub, R. E.; Siuta, G. J.; Weiss, M. J.; Wissner, A.; Dessy, F.; Van Humbeeck, L.
CORPORATE SOURCE: Lederle Lab., American Cyanamid Co., Pearl River, NY, 10965, USA
SOURCE: Chem., Biochem., Pharmacol. Act. Prostanoids, Incl. Proc. Symp. (1979), Meeting Date 1978, 243-57. Editor(s): Roberts, Stanley M.; Scheinmann, Feodor. Pergamon: Oxford, Engl.
CODEN: 40TZAM
DOCUMENT TYPE: Conference
LANGUAGE: English
AB A brief review of the author's use of vinylic Li reagents in prostaglandin synthesis was given. The effects of structural variations, especially nature and location of alkyl substituents and location of the OH group on bronchodilator activity of prostaglandins was discussed and illustrated with comparative tabular data for 32 racemic compds., with (-)-PGE1 as the reference compound
IT 71069-45-9 71069-46-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(bronchodilator activity of)
RN 71069-45-9 CAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-3-hydroxy-2-[(1E,4R)-4-hydroxy-4-methyl-1-nonenyl]-5-oxocyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



RN 71069-46-0 CAPLUS
CN 5-Heptenoic acid, 7-[3-hydroxy-2-(4-hydroxy-4-methyl-1-decenyl)-5-oxocyclopentyl]-, [1α(Z),2β(1E,4S*),3α]- (9CI) (CA INDEX NAME)

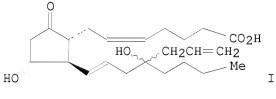
Relative stereochemistry.
Double bond geometry as shown.



L6 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1979:438996 CAPLUS
DOCUMENT NUMBER: 91:38996
ORIGINAL REFERENCE NO.: 91:6353a,6356a
TITLE: 15-Deoxy-16-hydroxy-16-substituted prostanoic acids and derivatives
INVENTOR(S): Floyd, Middleton Brawner, Jr.; Weiss, Martin Joseph; Grudzinskas, Charles Vincent; Chen, Sow-Mei Lai
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: Ger. Offen., 173 pp. Addn. to Ger. Offen. 2,731,868.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2837530	A1	19790322	DE 1978-2837530	19780828
GB 2006186	A	19790502	GB 1978-33588	19780816
NL 7808897	A	19790302	NL 1978-8897	19780829
FR 2401899	A2	19790330	FR 1978-24952	19780829
JP 54046748	A	19790412	JP 1978-105429	19780829
ES 472908	A2	19791016	ES 1978-472908	19780829

PRIORITY APPLN. INFO.: US 1977-828564 A 19770829
OTHER SOURCE(S): MARPAT 91:38996
GI

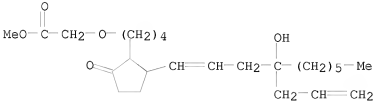


AB I and several known 16-hydroxyprostaglandins, and intermediates for them, were prepared by appropriate modifications of conventional syntheses; 105 new compds. were claimed. Some of the compds. had bronchodilatory activity.

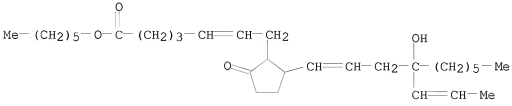
IT 70666-07-8P 70666-10-3P 70666-11-4P
70666-12-5P 70666-14-7P 70666-17-0P
70666-68-1P 70666-69-2P 70666-72-7P
70666-73-8P 70666-75-0P 70666-77-2P
70666-82-9P 70666-84-1P 70666-88-5P

70666-92-1P 70666-94-3P 70666-97-6P
70666-99-8P 70667-01-5P 70695-66-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

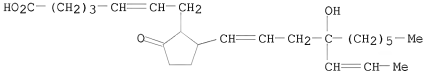
RN 70666-07-8 CAPLUS
CN Acetic acid, 2-[4-[2-[4-hydroxy-4-(2-propen-1-yl)-1-decen-1-yl]-5-oxocyclopentyl]butoxy]-, methyl ester (CA INDEX NAME)



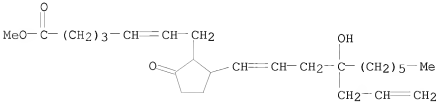
RN 70666-10-3 CAPLUS
CN 5-Heptenoic acid, 7-[2-[4-hydroxy-4-(1-propenyl)-1-decenyl]-5-oxocyclopentyl]-, hexyl ester (9CI) (CA INDEX NAME)



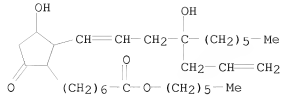
RN 70666-11-4 CAPLUS
CN 5-Heptenoic acid, 7-[2-[4-hydroxy-4-(1-propenyl)-1-decenyl]-5-oxocyclopentyl]- (9CI) (CA INDEX NAME)



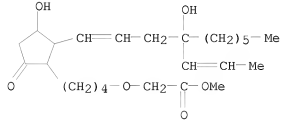
RN 70666-12-5 CAPLUS
CN 5-Heptenoic acid, 7-[2-[4-hydroxy-4-(2-propenyl)-1-decenyl]-5-oxocyclopentyl]-, methyl ester (9CI) (CA INDEX NAME)



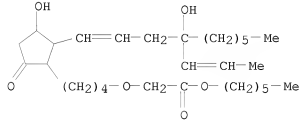
RN 70666-14-7 CAPLUS
CN Cyclopentaneheptanoic acid, 3-hydroxy-2-[4-hydroxy-4-(2-propenyl)-1-decenyl]-5-oxo-, hexyl ester (9CI) (CA INDEX NAME)



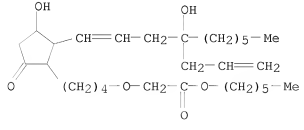
RN 70666-17-0 CAPLUS
CN Acetic acid, 2-[4-[3-hydroxy-2-[4-hydroxy-4-(1-propen-1-yl)-1-decen-1-yl]-5-oxocyclopentyl]butoxy]-, methyl ester (CA INDEX NAME)



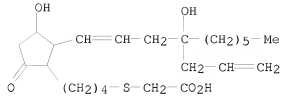
RN 70666-68-1 CAPLUS
CN Acetic acid, 2-[4-[3-hydroxy-2-[4-hydroxy-4-(1-propen-1-yl)-1-decen-1-yl]-5-oxocyclopentyl]butoxy]-, hexyl ester (CA INDEX NAME)



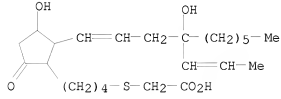
RN 70666-69-2 CAPLUS
CN Acetic acid, 2-[4-[3-hydroxy-2-[4-hydroxy-4-(2-propen-1-yl)-1-decen-1-yl]-5-oxocyclopentyl]butoxy]-, hexyl ester (CA INDEX NAME)



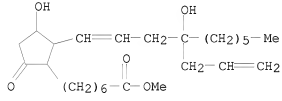
RN 70666-72-7 CAPLUS
CN Acetic acid, 2-[[4-[3-hydroxy-2-[4-hydroxy-4-(2-propen-1-yl)-1-decen-1-yl]-5-oxocyclopentyl]butyl]thio]- (CA INDEX NAME)



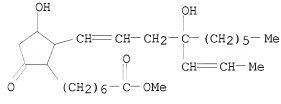
RN 70666-73-8 CAPLUS
CN Acetic acid, 2-[[4-[3-hydroxy-2-[4-hydroxy-4-(1-propen-1-yl)-1-decen-1-yl]-5-oxocyclopentyl]butyl]thio]- (CA INDEX NAME)



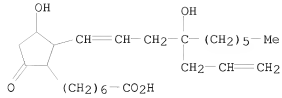
RN 70666-75-0 CAPLUS
CN Cyclopentaneheptanoic acid, 3-hydroxy-2-[4-hydroxy-4-(2-propenyl)-1-decenyl]-5-oxo-, methyl ester (9CI) (CA INDEX NAME)



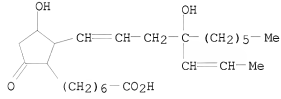
RN 70666-77-2 CAPLUS
CN Cyclopentaneheptanoic acid, 3-hydroxy-2-[4-hydroxy-4-(1-propenyl)-1-decenyl]-5-oxo-, methyl ester (9CI) (CA INDEX NAME)



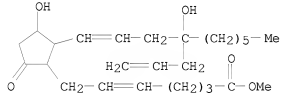
RN 70666-82-9 CAPLUS
CN Cyclopentaneheptanoic acid, 3-hydroxy-2-[4-hydroxy-4-(2-propenyl)-1-decenyl]-5-oxo- (9CI) (CA INDEX NAME)



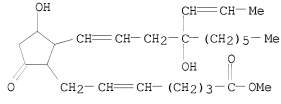
RN 70666-84-1 CAPLUS
CN Cyclopentaneheptanoic acid, 3-hydroxy-2-[4-hydroxy-4-(1-propenyl)-1-decenyl]-5-oxo- (9CI) (CA INDEX NAME)



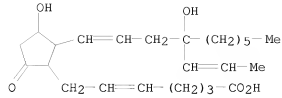
RN 70666-88-5 CAPLUS
CN 5-Heptenoic acid, 7-[3-hydroxy-2-[4-hydroxy-4-(2-propenyl)-1-decenyl]-5-oxocyclopentyl]-, methyl ester (9CI) (CA INDEX NAME)



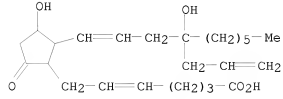
RN 70666-92-1 CAPLUS
CN 5-Heptenoic acid, 7-[3-hydroxy-2-[4-hydroxy-4-(1-propenyl)-1-decenyl]-5-oxocyclopentyl]-, methyl ester (9CI) (CA INDEX NAME)



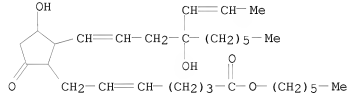
RN 70666-94-3 CAPLUS
CN 5-Heptenoic acid, 7-[3-hydroxy-2-[4-hydroxy-4-(1-propenyl)-1-decenyl]-5-oxocyclopentyl]- (9CI) (CA INDEX NAME)



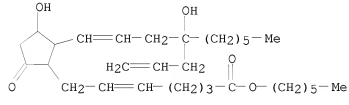
RN 70666-97-6 CAPLUS
CN 5-Heptenoic acid, 7-[3-hydroxy-2-[4-hydroxy-4-(2-propenyl)-1-decenyl]-5-oxocyclopentyl]- (9CI) (CA INDEX NAME)



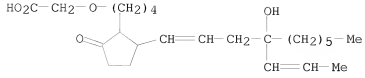
RN 70666-99-8 CAPLUS
CN 5-Heptenoic acid, 7-[3-hydroxy-2-[4-hydroxy-4-(1-propenyl)-1-decenyl]-5-oxocyclopentyl]-, hexyl ester (9CI) (CA INDEX NAME)



RN 70667-01-5 CAPLUS
CN 5-Heptenoic acid, 7-[3-hydroxy-2-[4-hydroxy-4-(2-propenyl)-1-decenyl]-5-oxocyclopentyl]-, hexyl ester (9CI) (CA INDEX NAME)



RN 70695-66-8 CAPLUS
CN Acetic acid, 2-[4-[2-[4-hydroxy-4-(1-propen-1-yl)-1-decen-1-yl]-5-oxocyclopentyl]butoxy]- (CA INDEX NAME)

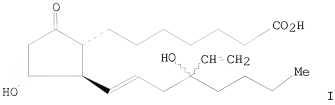


OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

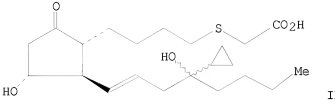
L6 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1979:151669 CAPLUS
DOCUMENT NUMBER: 90:151669
ORIGINAL REFERENCE NO.: 90:24097a,24100a
TITLE: 15-Deoxy-16-hydroxy-16-substituted-3-thiaprostanoic acids
INVENTOR(S): Floyd, Middleton B., Jr.; Weiss, Martin J.; Grudzinskas, Charles V.; Chen, Sow-Mei C.
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: U.S., 26 pp. Cont.-in-part of U.S. 4,061,670.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4131737	A	19781226	US 1977-782858	19770330
US 4061670	A	19771206	US 1976-706343	19760719
AU 7834374	A	19790927	AU 1978-34374	19780321
DE 2813342	A1	19781005	DE 1978-2813342	19780328
BE 865428	A4	19780929	BE 1978-186360	19780329
DK 7801377	A	19781001	DK 1978-1377	19780329
NL 7803418	A	19781003	NL 1978-3418	19780330
FR 2385696	A2	19781027	FR 1978-9306	19780330
SE 7803619	A	19781117	SE 1978-3619	19780330
JP 54039047	A	19790324	JP 1978-36173	19780330
CH 639935	A5	19831215	CH 1978-12411	19781205
US 4429148	A	19840131	US 1981-305901	19810925

PRIORITY APPLN. INFO.: US 1976-706343 A2 19760719
US 1977-782858 A 19770330
US 1979-79126 A3 19790926
OTHER SOURCE(S): CASREACT 90:151669; MARPAT 90:151669
GI

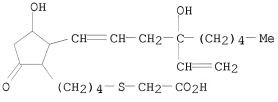


I

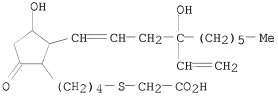


II

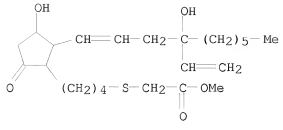
AB A series of known title compds. (e.g., I, II) was prepared conventionally.
IT 69801-90-7P 69801-91-8P 69801-96-3P
69801-97-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 69801-90-7 CAPLUS
CN Acetic acid, 2-[[4-[2-(4-ethenyl-4-hydroxy-1-nonen-1-yl)-3-hydroxy-5-oxocyclopentyl]butyl]thio]- (CA INDEX NAME)



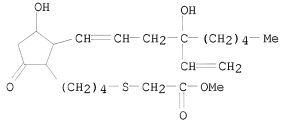
RN 69801-91-8 CAPLUS
CN Acetic acid, 2-[[4-[2-(4-ethenyl-4-hydroxy-1-decen-1-yl)-3-hydroxy-5-oxocyclopentyl]butyl]thio]- (CA INDEX NAME)



RN 69801-96-3 CAPLUS
CN Acetic acid, 2-[[4-[2-(4-ethenyl-4-hydroxy-1-decen-1-yl)-3-hydroxy-5-oxocyclopentyl]butyl]thio]-, methyl ester (CA INDEX NAME)

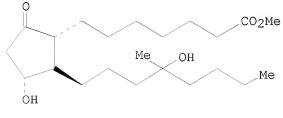


RN 69801-97-4 CAPLUS
CN Acetic acid, 2-[[4-[2-(4-ethenyl-4-hydroxy-1-nonen-1-yl)-3-hydroxy-5-oxocyclopentyl]butyl]thio]-, methyl ester (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L6 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1978:675 CAPLUS
DOCUMENT NUMBER: 88:675
ORIGINAL REFERENCE NO.: 88:143a,146a
TITLE: Synthesis and gastric antisecretory properties of 15-deoxy-16-hydroxyprostaglandin E analogs
AUTHOR(S): Collins, Paul W.; Dajani, Esam Z.; Driskill, Doyle R.; Bruhn, Mildred S.; Jung, Christopher J.; Pappo, Raphael
CORPORATE SOURCE: Dep. Chem. Res., Searle Lab., Chicago, IL, USA
SOURCE: Journal of Medicinal Chemistry (1977), 20(9), 1152-9
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB Twelve title analogs of prostaglandins E1 and E2 were prepared and tested i.v. in dogs for gastric antisecretory activity. Seven of the compds. were about equipotent or more potent than prostaglandin E1, of which

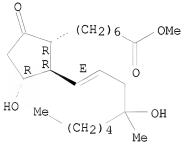
(±)-15-deoxy-16-methyl-16-hydroxyprostaglandin E1 methyl ester (I) [59122-46-2] was .apprx.40 times more potent. Structure-activity relations are discussed.

IT 58683-00-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and gastric antisecretory activity of)

RN 58683-00-4 CAPLUS

CN Cyclopentaneheptanoic acid, 3-hydroxy-2-[(1E)-4-hydroxy-4-methyl-1-nonenyl]-5-oxo-, methyl ester, (1R,2R,3R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



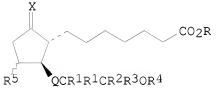
OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

L6 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1976:121272 CAPLUS
DOCUMENT NUMBER: 84:121272
ORIGINAL REFERENCE NO.: 84:19681a,19684a
TITLE: 16-Oxidized prostanoic acid derivatives
INVENTOR(S): Pappo, Raphael; Collins, Paul Waddell
PATENT ASSIGNEE(S): G.D. Searle and Co., USA
SOURCE: Ger. Offen., 45 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

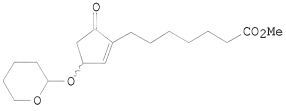
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2513212	A1	19751009	DE 1975-2513212	19750325
DE 2513212	C2	19860327		
US 3965143	A	19760622	US 1974-454913	19740326
BE 827127	A1	19750925	BE 1975-154714	19750325
DK 7501280	A	19750927	DK 1975-1280	19750325
FI 7500899	A	19750927	FI 1975-899	19750325
FI 63747	B	19830429		
FI 63747	C	19830810		
NO 7501039	A	19750929	NO 1975-1039	19750325
NO 146200	B	19820510		
NO 146200	C	19820818		
SE 7503431	A	19750929	SE 1975-3431	19750325
SE 420199	B	19810921		
SE 420199	C	19820114		
NL 7503553	A	19750930	NL 1975-3553	19750325
NL 183294	B	19880418		
NL 183294	C	19880916		
JP 50135059	A	19751025	JP 1975-36028	19750325

JP 58055142	B	19831208			
AU 7579471	A	19760930	AU 1975-79471		19750325
GB 1492426	A	19771116	GB 1975-12367		19750325
CA 1040197	A1	19781010	CA 1975-222994		19750325
AT 7502273	A	19790115	AT 1975-2273		19750325
AT 351684	B	19790810			
IL 46919	A	19791230	IL 1975-46919		19750325
HU 174973	B	19800428	HU 1975-SE1775		19750325
FR 2274289	A1	19760109	FR 1975-9523		19750326
FR 2274289	B1	19790629			
PL 100838	B1	19781130	PL 1975-179076		19750326
CH 613443	A5	19790928	CH 1975-3920		19750326

PRIORITY APPLN. INFO.: US 1974-454913 A 19740326
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 84:121272
GI



I



II

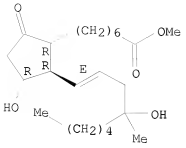
AB More than 21 16-hydroxyprostanoic acid derivs. were prepared, which inhibited gastric juice secretion and included I [R = H, Me, or Me2CH; R1 = H or Me; R2 = Me or Bu; R3 = Bu, pentyl, CMe2Pr, C.tplbond.CEt, or cis-CH:CHEt; R4 = H, Ac, Me, or SiEt3; R5 = H, OH, or OAc; Q = C.tplbond.C, CH2CH2, or cis- or trans-CH:CH; X = O or (H, OH)]. In an example, HOCHBuCH2C.tplbond.CH was converted into the Et3Si ether and reductively iodinated to give trans-Et3SiOCHBuCH2CH:CHI, which reacted with BuLi, [(Me3N)3PO]Cu+ C-.tplbond.CPr, and II and was then hydrolyzed to give I R = R2 = Me, R1 = R4 = H, R3 = Bu, R5 = OH, Q = trans-CH:CH, X = O).

IT 58683-00-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 58683-00-4 CAPLUS

CN Cyclopentaneheptanoic acid, 3-hydroxy-2-[(1E)-4-hydroxy-4-methyl-1-nonenyl]-5-oxo-, methyl ester, (1R,2R,3R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



OS.CITING REF COUNT: 23 THERE ARE 23 CAPLUS RECORDS THAT CITE THIS RECORD (23 CITINGS)

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